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The Gift of
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Madison, Wis.,
15 Sept., 1865.

THE

WISCONSIN FARMER,

AND

NORTHWESTERN CULTIVATOR;

DEVOTED TO

AGRICULTURE, HORTICULTURE, THE MECHANIC ARTS, AND RURAL ECONOMY.

EMBELLISHED AND ILLUSTRATED WITH NUMEROUS ENGRAVINGS.

VOLUME XVI.

EDITED BY J. W. HOYT,

SECRETARY OF THE WISCONSIN STATE AGRICULTURAL SOCIETY.

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THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

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Our Proposed Agricultural College.

It would now appear that this institution, concerning which we have had so much talk and even legislative discussion, in the time past, is soon to have a veritable legal existence. The lands donated by Congress have been formally accepted, selected and entered according to law, and the faith and honor of the State have been pledged to this—that a college, devoted especially to the interests of agriculture and the mechanic arts, shall have been actually established on, or before, the second day of July, 1867. And, accordingly, the question is no longer, "Shall we have an agricultural college in Wisconsin?" but rather, What shall be its style of organization? how shall it be amply endowed and put in operation within the period required by the law of Congress? where shall it be located, and by whom managed?

It is not our purpose, here and now, to discuss these several questions; merely to urge the great importance of the enterprise, and the necessity that the friends of industrial education prepare for a vigorous, self-sacrificing and persistent effort in its behalf.

The founding of a great institution of learntn involves immense labor, the liberal giving of material aid, the yielding up of individual preference and prejudice, and a reasonably patient waiting for results. And then, most important of all, there must be clear seeing and wise planning.

Several serious mistakes made by our sister States, in their endeavors to establish agricultural colleges, should be carefully avoided by us; especially those which relate to inadequate endowment, hasty and injudicious location, and premature opening. If we are to learn nothing from the experience of others, it will be in vain that we have waited for the results of their endeavors.

In a State of such resources and actual present wealth, and with two hundred and forty thousand acres of land to stand upon, as a nucleus and beginning, we ought to be able, within a very short time, to secure a broad and sure foundation for an agricultural college. *And this we must not fail to do.*

As to location, it must have the best in the State, without so much regard to present cost. Michigan thought to be economical, and so located her college in the woods, because the lands for the experimental farm could there be had at a low price; but, as the penalty for so narrow and short-sighted a policy, the institution has barely escaped failure, and for a score of years, at least, will have to contend with serious consequent embarrassment Wisconsin will hardly need caution on this point so long as she continues to suffer from the insane policy which governed in the location of her Lunatic Asylum.

Again, we must make the Agricultural College as nearly as possible a complete and finished institution, with the beginning of a really *model farm*, before inviting pupils to its halls.

In conclusion, we would urge, with double emphasis, that the management of the insti-

tution be spared the blighting touch of the mere *politician*. It is designed for the special good of the industrial classes of the people and the general advantage of all the great interests of the State. Let its conduct, then, be entrusted to the wisest and best of its friends.

Agricultural Journalism.

The press is to-day the first power of the world. The forum, the pulpit, the rostrum and even the battle field acknowledge its supremacy and subordinate themselves to it almost as readily as if its decisions were the decrees of Fate. And it is well, for the press is the voice of the intelligence of mankind, uttered for the instruction and guidance of the masses who must otherwise grope in darkness.

More strictly speaking, the press is not merely *a* voice: it is many-voiced, uttering words of stimulation and of wisdom for every pursuit and occasion in life. But with what it is doing for Industry we are solely concerned, at this time.

What has journalism done for agriculture? Almost everything. The man of science and the careful observer stand behind it, to be sure; but as teachers of the million they were powerless but for it.

A life-time ago, when agriculture was altogether routine and traditional, when the farmer was at the mercy of the elements and forces of nature, instead of being their director and master, as he ought to be and will be in the wiser future, there was not only no science at all, but men laughed at the idea of a *profession* of agriculture. To-day the great masses are beginning to see and acknowledge that agriculture is fast becoming a science, and the most difficult and complex of all sciences. The Scientist it was who made the discovery and the demonstration, but it is agricultural journalism that has popularized that science and laid it before the million, with authentic records of its proven applicability in practice. And thus it is that agriculture has made such progress within the last few decades of years.

The most important occupation of man the most essentially and rapidly advanced,—this is honor enough for agricultural journalism, and when its office shall have come to be justly appreciated, it will take and maintain its legitimate rank—the peer of every other; not only in importance, but also in *profit and honor*. To this end every intelligent reader of an agricultural journal has a mission to fulfil, so long as there is a farmer within his reach who has not yet felt the advantages of this department of the press.

Farmers, the great interests of a more intelligent and progressive agriculture are thus in your hands as well as ours. Who of you will be recreant, and who will be faithful?

Unpardonable Leaks.

"A penny saved is a penny earned," said Poor Richard, a long time ago. It was truth then and it is truth still. And that is the reason so few farmers make their labor as profitable as they might: they dont save their pennies, and so fail of the benefit of much of their earnings. Their treasuries are like "broken cisterns that can hold no water." They toil day and night, denying to themselves and their families leisure and facilities for improvement, and making life in the country anything but that beautiful poem it might be, and yet voluntarily relinquish a large per cent. of all they gain by their niggardly self-denial, simply through a miserable, lazy neglect to gather up the loose ends of their business in all its departments.

One will lose the full value of his own wages in the depreciation of his farm implements and machinery from want of careful housing and painting, after use. It would require but two or three hours to haul them all in and snugly pack them away under shelter, and yet from spring until autumn and from autumn until spring, his plows, harrows, cultivators, reapers and mowers, stand out in the weather, cracking, rotting, rusting and going to wrack, generally.

Another sacrifices a tenth or a third, or half, of his gathered crops for want of an hour's work in repairing a roof, in properly topping-out and protecting his stacks of grain and hay, or from want of even rat smartness in guarding his granaries against vermin.

A third loses as much more by neglect of his live stock—at times giving them too much feed, at other times not enough and sometimes none at all; thus deranging their health and causing a depreciation in flesh and market value, if not, indeed, inducing fatal disease and death.

While a fourth—and, perhaps we may truthfully say, nine of every ten of all our Western farmers deserve to rank in this class—fails of the large profits he might otherwise get by stupidly allowing his barn-yard and other manures to utterly go to waste. If you corner this fellow he will acknowledge that his grain and grass fields are not as rich as they might be, and, probably, he will tell you frankly that his crops for some time past have been a third lighter than formerly. But then sledding or carting out the manures that have accumulated in barn-yard, cow-shed and piggery would be a big job, and not very pleasant, and so he wades around the steaming manure heaps all through the rainy autumn, winter and spring, and, under the blistering sun of summer, whiningly works in his impoverished fields with but partial reward.

Other leaks as great and as unpardonable as the above, we have in mind, but mention of them must be deferred. If an effort be made to stop *these*, a majority of our readers will find enough to busy them for a while; and if not, then it were useless to point out others.

Kill off the Miserable Dogs.

"Not that I loved Cæsar less, but Rome more." So say we of the dogs. We have always been partial to certain noble specimens of the canine species, and have often, on long tramps through the woods, gone hungry ourself that we might share a moderate lunch with our faithful four-footed companion. And even now, when we have put away the exhilirating sports of the field and wood, for want of time, we never pass a large, intelligent and kindly-looking dog, whether of this breed or that, without a conscious impulse to go a little out our way, if necessary, to pat him on the head and speak one clever word We are, therefore, so far from being a hater of dogs, that we are naturally fond of them, and pleased with their friensdhip.

But there is another side to the dog question. Most dogs are so ill-born or badly educated, in this country, that, as a race of animals, they are a positive nuisance—consuming food which had better be saved for hungry children, destroying more sheep in the course of one season than they are worth, a thousand times, and periling the lives of human beings by their liability to attacks of the most horrible of all known diseases.

This is a true estimate of the dog family at any time; but it has especial force in these times, when the expense of keeping is more heavily felt, and when the high price of sheep and wool renders their depredations twice as serious as ever before.

"Pshaw! the keeping of a dog or two amounts to nothing; and as for all this talk about their killing so many sheep, I never believe one-tenth of all I hear."

You are mistaken. No dog can be decently kept at an expense of less than five dollars per annum, and many of them actually cost their owners five times that amount. Well, there are over three millions of dogs in the whole country, and you can use your own arithmetic. *Fifteen millions of dollars* for the bare *keeping* of our dogs! Nor is this the whole bill we are compelled to settle. Every year the country loses from one to two hundred thousand sheep by their depredations. Nor is *this* all: they (the dogs) have been the means of preventing the progress of sheep husbandry to an extent that can scarcely be estimated at less than five to ten millions of dollars per annum.

So that, every year, for the sake of worse than worthless curs—and more than three-

fourths of all the dogs are of this class—the country is sacrificing over twenty millions of dollars, besides a large number of valuable human lives.

The Georgia Legislature, at its last session, ordered the slaughter of dogs as a *military necessity!* It was estimated that there were one hundred thousand of them within the State, and that the provisions they consumed and the wool of which they prevented the production would feed and clothe five thousand troops. A good example.

During the past season great progress has been made in the matter of sheep husbandry in all the Northwestern States. Thousands of sheep have been imported from the East at high prices, and it behooves the people and the Legislatures of these States to adopt and faithfully carry out the most effective measures for the prevention of the immense damage that is, otherwise, sure to fall upon this important interest.

Let every true friend of the industrial interests of his commonwealth and of the prosperity of his country, set the worthy example of destroying all dogs of his own not positively valuable, and then see to it that the law is enforced upon such as refuse to obey its fair and reasonable requirements.

How to Manage the Muck.

We have already and repeatedly commented upon the value of muck as a means of improving soils known to be lacking in those rich materials in which it abounds. More than this, we have, each successive autumn, urged that pains be taken, by all who have muck and whose farms need an application of it, to secure a supply before the comming of winter. The following directions are introduced for such as have heeded our advice. If lying piled up in ditch-banks, or otherwise, in the bog or marsh where it was found, we know of no better way than to let it remain exposed to the action of frost until late in the season, when—the ground being still frozen so as to admit of easy hauling off—it may either be thrown at once upon the field where required, and then distributed in little heaps, or hauled to the barn-yard for subsequent use in the stables, piggery or compost heap.

In the former case, immediately on the coming of spring, or as soon as the frost is out of the muck, mix it with ashes in order to correct its sourness and still further pulverize, and finally scatter the mixture with shovel and hoe just before plowing. In this way, even very poor sandy lands, if not altogether wanting in clay, may be made highly productive for most of the ordinary crops.

But muck may be made yet more valuable by use in the barn-yard, as suggested above. After having been reduced to the condition of fine earth by the process of weathering, it becomes an excellent absorbent of manurial liquids and gases which otherwise might be entirely lost, and, for this reason, is extensively used by the most economical farmers in the best agricultural districts of the old world.

Germania at the World's Exhibition.*

Next we enter the courts of Germany, home of Literature, of Philosophy and of Science. Her thirty-eight states, including Austria, the Zollverein, the Hanse Towns and Mecklenburg, occupy the entire western transept of the palace, together with the galleries, a large amount of space in the enclosed court on Cromwell Road, and several hundred square yards in the vast hall devoted to Machinery in Motion.

THE ZOLLVEREIN STATES

Come first after France. They embrace, as here represented, twenty-four kingdoms, duchies and principalities, associated together for commercial advantage, and the display they

* Those of our readers the present year who were not such in 1862 and '63, should understand that, in the former year, the Editor of this journal was commissioned by the Governor to attend, as the representative of Wisconsin, the Great Exhibition of the Industry of All Nations, to be held at London between the 1st of May and the 15th of October, 1862, that he did so attend said Exhibition, and that this present article is the fifteenth of a series, based upon notes taken at the time of inspection, and successively published in this journal.—EDITOR.

make is truly magnificent, especially in the economical classes.

Specimens of mineral products common in Germany, such as iron, copper, rock salt of great purity, millstone grit, attract great attention. Very interesting samples of forged and cast iron, cast steel, copper in sheets, bars and ingots, and much else of this description are also here, together with machinery and implements manufactured therefrom.

Fine samples of wine, of wool, chiefly saxon, silesian and merino, of seeds, cereal grains, preserved fruits, likewise make an imposing display.

The Rhenish provinces show fine specimens of arms and cutlery, pianofortes, harmoniums, and other musical instruments.

PRUSSIA presents a collection of fine manufactures of iron and steel, a cast-steel cannon, a powerful (but to my eye ill-looking) locomotive, railway carriages from Berlin, trams for underground work, a machine for sharpening needles, sets of tool machinery, vacuum apparatus, telegraphic apparatus, pantographs, printing rollers, copper plates, &c.

There are likewise fine displays of woolen and worsted goods from most of the leading factories of the kingdom, of leather and a great variety of its manufactures, of globes, maps, books, and other educational appliances, of porcelain manufactures, numerous and very beautiful, and of ornamental castings in great variety.

But the most attractive articles in this court are the specimens of amber ware from the Prussian shores of the Baltic, and the fine cases of precious stones and metals, and of Berlin silver ware, including the presents made to the Princess Royal of England, on the occasion of her marriage with the Prince of Prussia.

WURTEMBURG exhibits metallic manufactures, such as cutlery, carpenters' tools, garden tools, jewelry, an interesting series of agricultural implements and a curious set of models of plows from the earliest to the present time; also fine samples of iron, mineral salt from layers eighty feet thick, limes, cements, &c., together with wools, raw silks and textile fabrics and hosiery made therefrom.

BADEN makes an imposing display of jewelry and gold, of bronzes of great perfection, models of buildings and of bridges, and, in the department of Fine Arts, engravings, photographs, and several remarkable cartoons by Cornelius.

BAVARIA is creditably represented by a variety of minerals, including samples of coal, by wines and hops, cut glass, every sort of lead pencils, tinted papers, chemical colors, oil-colors, prints, and some remarkable life-size photographic portraits by a distinguished artist of Munich.

SAXONY is also worthy of special notice on account of her beautiful specimens of porcelain, earthen ware and painted China ware, of serpentine vases, and of pure tin from the Altenburg mines. Here we also find samples of spirits, chocolates, essential oils, and the like, musical instruments, &c.; while in the gallery above we shall find all sorts of wool-lens, fine silk stuffs, materials for carpets, lace and damask stuffs, and an interesting collection of textile fabrics.

Next in order, approaching the great dais under the western dome, we come to

THE HANSE TOWNS,

Bremen, Hamburg and Lubeck. The first named exhibits wicker work furniture; Bremen shows specimens of cabinet ware, hardware, and some beautiful ornaments in silver; and Hamburgh, a number of musical instruments, several ingeniously contrived sewing machines, a collection of minerals and chemicals, wicker-work furniture, a statue of Arminius, and, most interesting of all, a large and curious collection of ornaments in carved wood, and complete sets of furniture manufactured from bucks' horns.

Mecklenburgh occupies but little space, showing scarcely more than some fleeces of wool, samples of leather and a few rifles.

Passing, now, under the grand dome, we stand in the midst of

THE AUSTRIAN EMPIRE—

Another of the great powers of the Old World. What we see around us fitly represents her resources and progress. Coal, sulphur, alum. arsenic, cobalt ore, antimony, zinc, lead, graphite, iron, copper, quicksilver, silver and gold, illustrative of her varied and extensive mineral wealth—thousands of samples of wool, cereal grains and seeds, representative of her fertile fields and in evidence of her seven hundred million dollars worth of annual staples of agricultural products—magnificent displays of Bohemian glass, and galleries filled with beautiful samples of cloths, silks, shawls, ribbons, laces, &c. from her teeming factories—musical instruments of every sort, and the finest photograps I ever saw, unless we except Bradey's, of New York, in proof of her artistic genius—books, globes, maps, anatomical preparations, and other educational appliances, suggestive of her vast public libraries, and her sixty-six thousand schools, colleges and universities—and a trophy of guns that may be supposed to stand for the great army of four hundred thousand men who, even in times of peace, are kept in arms for the common defense and for a guaranty of the tyranical power of "His Apostolic Majesty," the despot who, in the name of the House of Hapsburg, rules over her forty millions of people.

The Germans excel in the useful, and do honestly and well whatever they undertake

BELGIUM

Has her place by the side of Austria, on the corner of transept and nave. She makes a magnificent show of her economical minerals, especially of iron and coal, of manufactures of iron and copper, of vegetable and animal substances used for manufactures, such as hemp, flax, wool, leather, &c., of fire-arms and cutlery, and every variety of textile fabrics.

In the department of Machinery we shall find sugar-making machinery, mortising machinery for wood, oil-cake apparatus, paper machinery, brick making machines, spinning, napping, pressing, and washing machines, and machinery for carding, weaving' shearing and smoothing cloth, and a thousand other things of interest.

In the galleries there is the most magnificent display of Brussels lace the world ever saw.

Belgium is one of the most energetic, enterprising and flourishing little kingdoms of the earth.

And now hail heroic

HOLLAND!

Land rescued from, and held in defiance of, the sea! Any other people but thine would have been permanently driven from thy lowlands long ago, but with characteristic will and obstinacy thou hast said to the thundering ocean, "thus far shalt thou come, but no farther, and here shall thy proud waves be staid!"

The exhibition of minerals, food substances, fibres and fabrics, carpets and other products of the Dutch loom, of carriages, of carvings in wood and stone, of paintings, leather manufactures, silver plate and diamonds are worthy of her; but those works which alone of all others could do her the best justice—her numberless canals, threading her lands as the arteries course the human frame—her countless wind-mills and wonderful dykes—are necessarily not here.

"No Dignity in Farming."

There is no dignity in the farming of those farmers who waste their time and make their families miserable by hanging around grog-shops or any other place where loafers resort.

There is no moral value in those farmers who condole with their fellows upon the small incomes of their farms; who endeavor to discourage, and thus bring ruin on themselves as well as others; who ridicule the efforts of farmers to improve their leisure time with study, or the efforts to sustain such literature as the FARMER, and who embarrass every noble movement by sneering at it, or by manifesting opposition to the mental improvement of their neighbors. There is no dignity in the farmers who represent this class.

They stand like Samson; with either hand against the columns of the temple, they cause the whole to fall, heedless or ignorant that they are destroying themselves at the same time.

Suppose you there were any good, honest farmers among those who defied the law in the Empire State?

It would be well for such to counsel with Poor Richard. "What does he say?" I think I hear some one ask. Hark!

"He that by the plow would thrive,
Himself must either hold or drive."

The dignity of farming depends upon the industry and intelligence of farmers.

J. F. BARKER.

CASSEL PRAIRIE, Dec. 1, 1863.

Ashes for Sandy Lands.

Of all the manures within reach of the farmer, I consider ashes the cheapest and most durable for sandy soils. For clover on sandy land, it has no equal among all the manures and fertilizers of the day. The soil in this vicinity is a loose, sandy soil; in fact, we have, as it were, a prairie of sand plain, such as were found in nearly every portion of our county fifteen years ago. They appear never to have been charged with vegetable matter, for even when the timber is first removed, and the land cleared and put to rye and other crops, they yield liberally only for one or two years before they require generous manuring. It is loose, porous, and without that firmness which is requisite to keep plants in their places, even if their proper food could be found. This land, a few years ago, could have been bought for one-third what it would bring at the present time. The cause of this rise in the price of land is a liberal supply of muck and ashes. The muck is drawn on in winter and spread over the land; the ashes are applied in the spring, at the rate of 75 bushels to the acre; after corn is planted it is put on the hill or sown broadcast. The general rule is to plant with corn and put the ashes on the hill; sow to rye in the fall as soon as the corn is removed, seed with clover the following spring. The following season, after the rye is removed, the seed is gathered from the clover and the straw left standing on the ground. This is done with one of Disbroe's Clover Strippers, an excellent machine for the purpose. Two bushels of seed are frequently obtained from an acre; the straw thus left standing forms an excellent substance, in connection with the muck, to fill the pores or open places between the particles of sand, and supply proper food when acted upon by the salts around it. I have known portions of these plains the surface of which, to all appearanc, had not been covered with vegetation within the memory of man—where the blackberry vines grew weak and feeble, and five finger vines grew weak and far between, so completely invigorated and enriched in a few years, as to produce thirty bushels of rye, or two bushels of clover seed to the acre. Those lands thus brought to a state of fertility, are capable of yielding a crop every year, under the application of ashes, as those lands which have never been reduced. The owners of farms of heavy loam have heretofore considered these lands of little value, as compared with theirs; but I would sooner cultivate a corn crop on them than on the heavier loam land. I can work two acres of the sand as cheap as one of the heavier land, because the plowing and hoeing can be done with less team and help, and in much less time. Ashes here can be bought for 12½ cents per bushel, and I think are worth 25 cents to be applied on sandy soil in connection with muck. This mode of operation for the treatment of sandy soil, so as to bring it on an equal footing in point of productiveness, requires no uncommon skill but commends itself to the practice of all—for any common manager of a farm may accomplish it without the aid of any adjuncts of chemistry, or what are called special manures, but by using merely those great gifts of nature.—S. P. KEATOR, in *Country Gentleman.*

The Largest Barn in the Country.

The Shakers are famous for their great barns, and the largest one that they have is in Lebanon, in New York. It was recently erected at an expense of about $15,000, and is thus described:

It is 195 feet long, 60 feet wide, five stories high; the walls of good, flat, quarried stone, five feet thick at the foundation, carefully laid in lime mortar, cement pointed outside, and plastered inside; roofed with tarred paper, cement and gravel. It also has three wings, wooden buildings, which form four sheds about 100 feet long, upon the east and west side of two cattle yards, on the south of the main building, with lofts for straw and grain connected with the barn.

The lower story of the barn is a mannre celler, and the west end is level with the ground, so that carts can be driven in and out with ease. The next story is the cow stable which is on a level with the yard, the cows standing with their heads towards the centre, with a passage between supplied with water pipes and cocks. In this passage, roots, cut-feed, or water can be given in iron feed boxes, which swing on a pivot into the passage. Behind the cows the floor drops a couple of inch-

es, a space of three feet, and beyond that rises again. This depression is to hold the manure. On the rise behind are iron rails, upon which cars run into the west end and over a space about 25 feet wide, and discharge their loads, the rails and a turn-table being so contrived that the manure is well distributed with but little labor. The idea is entertained of making the whole cellar into a liquid manure vat, which could be distributed by its own gravity upon the lower part of the farm, or sent higher up by the water power that drives the mill not far distant. The cows are all fastened in their stalls at each milking, in summer, and all at one movement. They are driven in altogether, and each one takes her place where her name is printed overhead, and then by a pull of a cord all the movable stanchions are closed. They are opened by a reversed motion, and all the cows hurried out in a drove, so that they never make a deposit upon the floor. They are left a few minutes to do that in the yard before sending them to the pasture.

There are six large chimney-ventilators from the rear of the stalls to the roof. The floor above them supports the great hay mows, between which is the floor for feeding hay, which is sent down to the cows through box tubes, and these, when empty, also assist ventilation. There are openings from this floor into the straw lofts over the sheds, and also to the store rooms for roots and grain.

The next floor is the great drive-way for loads of hay, 16 feet wide and 196 feet long, with ample space at the west end to turn around. This floor opens upon a public road, and is but little above its level, so that loads really come in easily at the top of the barn. Over this floor is a fifth story, only the width of the floor, to give room for work, ventilation and light. Half of the many windows are glass, and half slatted blinds. The hay is nearly all thrown down, not pitched up from the load. In case of need, the large space at the end can be filled, but it is thought that it will not be necessary, except with corn, which can be husked there and thrown down a spout into a large, airy granary over the western shed.—*California Farmer.*

The Canada Thistle.

The Canada Thistle, execrable and forever to be detested! hateful to the sight or touch, did not come from Canada, but from Europe. It has a malignant vitality. Its roots creep under ground, and its seeds multiply and fly endlessly above the ground. The vexed farmer has to fight them as one does guerrillas, one by one. Linnaeus pronounced it the greatest pest of the earth in Sweden. Dr. Darlington, in his history of the weeds, has given to this species the name *cursed thistle.* Few botanical terms will be pronounced more heartily. This is the very thistle that came up to punish our first parents. It carries judgment and punishment with it, both to man and beast. To have these thistles on a farm without extirpation, ought to be as disgraceful as to have vermin on the body. Cut them down wherever they appear—in the fields and by the road side. Never allow them to come to seed, as they fly upon "the wings of the wind."

The Potato Disease.

Prof. Johnson, of Yale College, has publicly endorsed the fungus theory announced by some of the German botanists. He says:

These investigators have not merely looked at the blighted leaves and seen the fungus there, but have watched the fungus, as it rapidly sends out its branches into the still healthy portions of the leaf, which it literally devours—appropriating the juices to its own nourishment and leaving behind a disorganized and decayed mass, as the track of its desolation. It is easy to see, with the naked eye, that the fungus travels over the potato leaf before the blight. If the observer carefully regards one of the brown, bright spots, when the diease is spreading, he will see its borders are extending over the still green leaf, in a forest of tiny mould plants, which cover the leaf with a greenish down. This is the true potato fungus, the *Peronspora intestans*, as it is now botanically designated.

"More Hay."—An old gentleman who was always bragging how folks used to work in his younger days, one day challenged his two sons to pitch on a load of hay as fast as he could load it. The challege was accepted, the hay wagon was driven round, and the trial commenced. For sometime the old man held his own very creditably, calling out, "more hay! more hay!" Thicker and faster it came. The old man was nearly covered up; still he kept crying "more hay! more hay!" At length, struggling to keep on top of the ill-arranged heap, it began to roll and then to slide, and at last it went off from the wagon and the old man with it. "What are you here for?" cried the boys. "I came down after more hay," answered the old man, stoutly.

Death to Gophers.—A correspondent of the *Prairie Farmer* gets rid of gophers in this wise: "Take a potato, make an opening in the side of it, and insert strichnine the size of a grain of barley. Find the gopher's hole where he has lately been at work, put the potato into the hole, and cover all up. Mr. Gopher will help himself to the potato and strichnine, and he has his own grave already dug.

STOCK REGISTER.

From Mayhew's Illustrated Horse Doctor.

Pleurisy in the Horse.

This most painful disease, like those of the lungs generally, visits valuable horses during the years when they are most esteemed. The unbroken colt is seldom attacked, and the aged animal is, to an almost equal degree, exempt. The young stud, newly stabled, is liable; and that liability remains up to the sixth year, when it gradually subsides. It is a terrible affliction. Its anguish is localized and concentrated. It is inflammation of the fine, glistening membrane covering the lungs and lining the inside of the chest. At every inspiration and at every expiration the inflamed surfaces must move upon each other. To breathe is the primary necessity of the creature's life. It cannot exist and refuse to inflate the lungs; yet is existence purchased at a price worth many years of happiness. The inflamed surfaces cannot remain quiet; yet, to render the condition of the motion more acute, inflammation stops the secretion which, during health, smoothed and lubricated the passage of the membranes. During disease, the pleura is swollen, rough and dry; it grates or scratches as one surface is, by the necessity of breath, dragged over the other.

Membranes are sensitive in disease in proportion to the fineness of their structure, and to their insensibility during health. The pleura belongs to what are termed serous membranes. These line closed cavities, as the chest, the abdomen and the joints. Of the existence of some of these are we conscious while they are free from disease; but let the inflammation set in, and it would be difficult to decide which of them was most painful. Fortunately, however, when concentrated, or singly present, it terminates, generally, by the second day.

The symptoms, therefore, are quickly developed. The violence on their first appearance has been so great, that an attack of pleurisy has been mistaken for a fit of spasmodic colic. A little care will guard against so fatal an error. The pulse, in colic, is always natural at the commencement, and the fits, when they first occur, invariably of short duration. In plurisy the vessel strikes the fingers; the blow is strong and the artery is thin; the pain is continuous; the agony never remits or ceases; the horse never feeds; the body is hot, and indicates the fire within; the feet are icy cold; the muscles are frequently corrugated in patches, and partial perspiration breaks forth upon the surface; a cough is often, not invariably, present; it is always suppressed and dry; it suggests no notion that the intent is to clear the throat; the inclination to cough, from the larynx sympathizing with the lungs, is great; the feeling cannot be entirely mastered, but the horse is fearful of indulging an impulse which would violently shake the inflamed chest. The ear, placed against the ribs, detects a grating sound, and the respiratory murmur is less clear than usual. Pressure made on the free interspaces between the ribs, sometimes deprives the animal, almost, of consciousness; it shrinks, and were the torture continued, it would fall. At other times, anguish maddens even timidity—the foot is lifted, or the teeth are displayed to repel the tormentor. When left alone, the head is frequently turned towards the side, with a piteous stare of wonder and enquiry. Altogether, the animal is, as it were, inspirited with the disorder.

The fore foot is scarcely ever quiet; it constantly paws, which action, in the horse, always expresses impatience or pain. The breathing, of course, is peculiar; a full inspiration the animal dare not take. Before the inhalation is half completed, the ribs fly backward. However, the backward action has already been accomplished before anguish once more compels a change; thus the breathing, to a looker-on, appears, short, jerking, quick and always imperfect.

The Treatment must be active, as it is likely to be short At the first outbreak, abstract enough blood to ease the horse, but take no more; place the sufferer in a cool, loose box; put woolen bandages upon all the legs, but

leave the body unclothed; give, every quarter of an hour, a scruple of tincture of aconite in a wine-glass of warm water. Feel the pulse before each dose: when that is softened discontinue the aconite; every second hour, then, administer one ounce of sulphuric ether and of tincture of opium in a tumbler of cold water, to dispel any congestion that may lurk about the pleura, and also to lend smoothness or fullness to the pulse.

Pursue these measures for the first day and night. On no account be tempted to bleed a second time for fear of that weakness which generates hydrothorax. When the pulse and pain are amended, should the cough remain, introduce the steaming apparatus, twice described under the headings of the two previous articles.*

The bowels are generally costive; be not alarmed; with the departure of the disorder they will relax. Place lukewarm water within easy reach of the animal; but before the symptoms abate, introduce nothing of a more stimulating nature. When the disorder lessens, hay-tea may be allowed; as improvement increases, the diet may be gradually augmented. * * * * Such care is essential, because any violent disorder in a confined part of the body, has a tendency to involve other structures, and the danger of this increases as the inflammation is removed from the surface.

The tranquilizing of the respiration, the softness of the pulse, and the return of the appetite will announce the departure of the pleurisy. When these longed-for symptoms are remarked, blister the throat and chest; should any seeds of the malady appear to be not entirely removed, repeat the blister to the throat and chest. Should the bowels not be relieved, throw up copious enemas of blood-warm gruel; nothing more must be attempted. Aloes or salts are poisons during pleurisy; wait patiently, and in time the establishment of health will restore all the natural functions, or if they are confined a bundle or two of cut grass may be presented with the usual food.

A yellow, transparent discharge from the nostrils, occasionally streaked with blood and more or less otherwise discolored; a horrible anxiety of countenance, which seems to appeal mutely to every human being the saddened eye rests upon; quickened breathing, a more rapid but sinking pulse, and a leaden state of the nasal membrane, declare the probability of a fatal termination. Pleurisy, however, mostly ends in hydrothroax. [dropsy of the chest.]

Now comes the sad inquiry, what is the cause of pleurisy? All kinds of things may excite it; but those things which lead to so much suffering in an inoffensive animal, are under the control of man. Over-exertion being ridden or driven fast, the spirit being stimulated and the energy promoted by potent drinks; for men will give the contents of the public house to a horse where a wager is at stake, and will lash him while the limbs can move, to win any pitiful bet; these circumstances not unfrequently provoke pleurisy. Injuries received externally not unseldom start up internal inflammation. Hurts calculated to lead to so serious an evil, together with broken ribs, will not be surprising to those who have seen the unseemly instruments which man will, in his rage, seize upon to strike the animal with. Colds, aggravated by change of temperature, as waiting long in the rain and being hurried home afterwards; inattention in feeding, thus generating a plethora, is apt to disorder any internal organ, and many other such like causes will generate the disease.

* The author refers to a kind of sheet-iron stove or box, with a place for charcoal at the bottom, a vessel of water just above, and the whole covered over with wire on the top. Such a concern could be easily and cheaply made by any tinner; but in the absence of it, a thick woolen bag, containing a gallon of yellow pine saw dust, and having a flap at the side for the pouring on of hot water every twenty minutes, will answer. If yellow saw dust cannot be had, common may be made to answer by sprinkling upon and thoroughly mixing with it, one ounce of spirits of turpentine before pouring on the water. This steaming may continue for an hour at a time, and be repeated three, four or five times a day, if necessary.—Ed. Farmer.

And what right has any man to inflict so much agony on any life entrusted to his care? What right has humanity to complain of tyranny in its superiors, when the human race can neglect and entail such anguish upon the beings beneath them? The greed of gain or the pride of winning are the first emotions assigned as the promoters of this terrible affliction; next come the gratifications of passion; then follows carelessness for another's welfare, &c., &c. Which of the causes is worth the torture of a living body? such torture, too, as the rack cannot equal, and human malice is happily forbidden to rival!

A little self-restraint, instilled by a better plan of education, a little more humanity, enforced by the teachers of religion, to instruct that man should not view himself as the owner of the earth which he temporarily inhabits; that man should not consider himself the proprietor of the lives which share the globe with him; that man should be actuated by genuine CHRISTIAN LOVE towards all animated nature, feeling kindly for the lives akin to his own, and acknowledging as fellow sojourners, the creatures by which he is surrounded; then, how much affliction might be eradicated from one that unkindness alone renders a "vale of tears."

Water for the Sheep.

A very false notion prevails among farmers as to whether sheep require water in winter; some asserting that they have need of none at all, in any form, and others that they are able to slake their thirst by eating snow. No theory could be more erroneous. The physical constitution of the sheep, in this respect, differs not from that of other domestic animals, and it has immunity from thirst no more than they.

By certain experiments on this point, recently made by Mr. Lawes, of England, it was clearly established that sheep do require a considerable amount of water—the average being 40½ lbs. per week, or nearly 6 lbs. per day for such as were kept on dry feed.

As for snow, we all know that it does not satisfy our own thirst like water, and we are without the slightest evidence that it answers the sheep any better.

Farmers, don't be humbugged by any of these popular fallacies. The sheep is a delicate animal, and not only requires, but will amply reward you for the best of care.

How Long Should Cows go Dry?

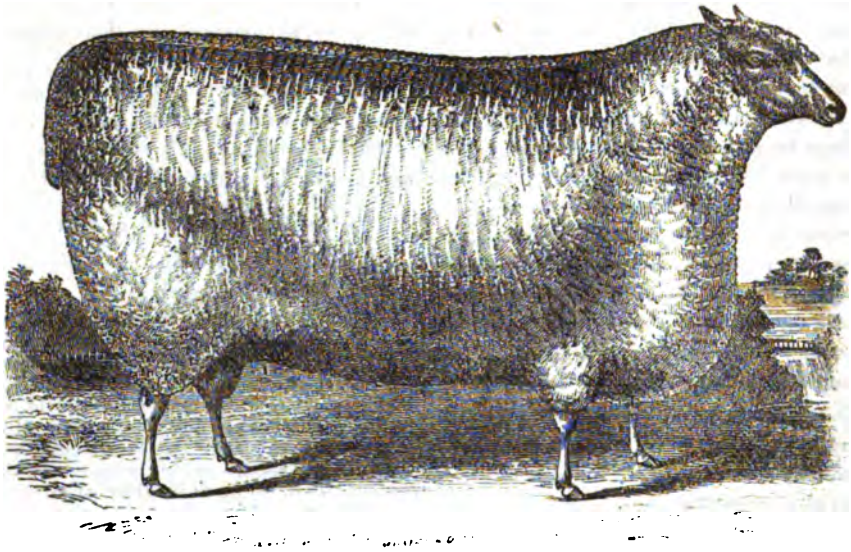
In answer to this question the editor of the Boston *Cultivator* remarks:

"When cows are kept for the manufacture of butter and cheese it is not desired to have much milk in cold weather, as neither butter nor cheese can generally be made to advantage on a large scale except under a mild temperature. Hence the object is to have all the cows "come in" near the commencement of the butter or cheese-making season, and they are usually dried up at its close, or at the recurrence of cold weather. By this course the cows do not require so high feeding as they would if they were milked longer. Good hay, in connection with proper shelter and care, will be suficient to sustain them in fair condition. Their constitutions will not be impaired, their calves will be born strong and healthy, and all the essential requisites of a thrifty and profitable stock secured.

We might say, then, that where it is intended to rear stock, and the keeping of the cows is not superior to good hay in winter and grass in the summer, both the cows and their progeny will do better to go dry not less than two months.

Care of Dairy Cows.

A writer comments as follows on one point of this subject: Dairy cows should receive their food at regular intervals; their milk should be drawn at stated hours, and by quiet, gentle milkers; and they should be treated at all times with the greatest kindness. In short, every means in the power of dairy farmers should be used to insure their tranquility. Harsh treatment also exerts a very injurious action on the milk, rendering it less buttery and more liable to acidity. Respiration is a species of combustion. At every breath we inhale oxygen of the atmosphere, which unites with and consumes the fatty matter of the food. When cows are worried or driven too rapidly, they breathe more frequently, inhale more oxyen, and more of the buttery portion of their food is consumed, leaving less to be converted into milk." * * It is well known to all experienced dairymen, that their cows yield more on pleasant days, or when they have the run of warm, well sheltered pasture, than on cold, rainy days, or when they run in cold, bleak pastures."



"What About the Leicesters?"

EDITOR WISCONSIN FARMER:—Having recently bought me a farm in this State, with the view of doing something in the sheep business, I write to enquire as to the breed I had better get. The Merinoes seem to be all the rage, but I have had an idea that some of the long-wooled breeds might be more profitable, in view of the large demand for the coarser wools for army cloth. What about the Leicesters? I know but little about them, except that they are large and are said to shear heavy fleeces.

N. L. JONES.

RED WING, Minnesota, Dec. 1. 1863.

Our correspondent raises a question which we discussed at considerable length in 1861, and to which we have frequently since alluded. Still, it is scarcely less important now than then; for the circumstances which demanded a word for the coarser-wooled sheep continue, and, probably, will for some years to come. Indeed, we shall feel that we have been a little mistaken, if, in the five or ten years to come, the coarser cloths will not be more in demand by the great body of the people, than they have been, thus far, during the progress of the war.

These days of stuffed wallets and sumptuous living cannot always last; and when money becomes more difficult to get, and next to impossble to keep, on account of the tax-gatherer, our fast men, young and old, will be glad to find the coarser fabrics growing in popularity.

We must, nevertheless, not forget the other circumstances which should modify our action in the matter of selecting breeds of sheep. What would be admissible in one part of the world might be very poor policy in another.

In the best pastoral districts of England, indeed, wherever feed is abundant, and where mutton is a consideration of importance, the Leicester breed of sheep is popular. But in this country, where sheep have less tender care, and where there is really very little demand for mutton, it has not found so great favor. The above cut illustrates what this breed may attain to in the fine pastures of Leicestershire, or the blue-grass valleys of Kentucky.

The Cotswold and South Downs would answer a better purpose; being altogether more hardy, producing a finer and more valuable fleece, and better mutton.

But, after all, it is questionable whether there is any breed better adapted to this northwestern section of the United States than is the Spanish Merino. *We* think not.

About Feeding Roots.

The verbal enquiry has several times been made, of late, as to the *when* and the *how* of feeding roots to stock. We are heartily glad to know that some of our farmers are getting awake upon the subject, and would answer them, *en masse*, as follows:

If you have roots—and no farmer, who keeps either sheep, cattle, or horses, is excusable for not having a good lot of them for winter feeding—they are doubtless either turnips, mangold wurzel or carrots. Well, these are all good for either class of the animals named, though the horse is more partial than the others to the carrot, and should, on this account, have more than his equal share, in consideration of relinquishing all claim to the wurzels and turnips, to which the sheep and the neat cattle are scarcely less partial.

As to *when* roots should be fed, we agree entirely and most emphatically with the able and long-experienced Editor of the Massachusetts *Plowman*, who says: "The best time to feed turnips and mangolds is *all* the time, from the day the cattle have had their last bite in the pasture, to as late a period in the spring as the roots will keep well.

We know it is the practice of some very good farmers to reserve their roots until midwinter, and then to feed very liberally until the crop is exhausted; but we believe it is more advantageous to distribute the quantity, even if it admit of but a moderate allowance a day, over the whole period of winter-feeding; and our own experience has confirmed us in this belief.

Green fodder is the natural food of neat cattle, and every farmer has noticed the avidity with which they will turn from the best hay to a mass of roots of whatever kind. When taken from the fields in the fall, the utmost care and attention hardly suffices to keep up the condition of the animals at first, if fed upon hay alone; and then it is that turnips should be introduced as part of the daily ration. We have no doubt that such blending of food has a very favorable effect upon the organs of digestion, and that dry fodder, of whatever kind, is eaten with a better relish where this course is pursued. In fact, turnips fed with swale, and even with coarse meadow hay, will form a better, as well as a more economical diet for all the neat stock of the farm, except milch cows, than the best hay fed separately.

The best half dozen yearlings ever raised by us, were carried through their first winter exclusively upon this diet; giving with the meadow hay, a peck of turnips a day to each. The turnips seemed to have the effect of an *appetiser*, for we noticed that the hay was eaten up clean where turnips were fed out, while it was not upon those days when, by way of experiment, the turnips were withheld. We sold them in the next summer for $16,67 cents per head, (solely on account of their fine growth and thrifty appearance,) to one of the best judges of farm stock in the State. A good price for yearlings, as all farmers will admit, and affording, as we think, a good answer to the enquiries of our correspondent, for they were of native and mixed breeds, pains having been taken only to select calves from good milkers, without reference to blood or pedigree.

In regard to feeding turnips to sheep, we believe there is no fact in agriculture more universally admitted than that they form one of the best and cheapest articles of diet that can be supplied, whether the sheep are reared for their lambs, their mutton, or their wool. In England, where greater attention is paid to sheep husbandry than in this country, the practice universally prevails of feeding with turnips, commencing as soon as the pastures fail in the fall, and continuing their use through the winter."

The *how* is also a question of some importance. It is very common among the few farmers of this country who feed roots at all, to throw them down in heaps in the open field, where, if not already frozen, they soon will be, and where each stronger animal is left free to charge upon and gore the weaker and more

timid ones while feeding. This is all wrong. For, in the first place, it is impossible that a frozen turnip should be very wholesome diet, if bolted in large pieces; and, secondly, this hurried eating under threatened or actual attacks from superiors in strength or courage is liable to occasion a partial grinding of the feed, and not unfrequently results in choking.

Sheep nibble their feed, if of this kind, and in their case the raw root is partially warmed before it enters the stomach, and is, therefore, less liable to derange the digestion. But in either case there can be no question but that it would be more wholesome if not frozen. The remedy is obvious: Have partitioned troughs or boxes to feed in, under cover, and take the roots from the cellar each day as needed. All this requires a little more trouble, but the farmer should not expect to make much by his business without a good deal of just that.

Winter Care of Sheep on the Prairies.

Winter being upon us by the first of December, this is the time for sorting. Lambs should always be folded separate. Yearlings having weak teeth should, if there be a flock of over one hundred, be fed by themselves. Large wethers should be sorted out from the ewes, and the breeding ewes put in a pen of such dimensions, with gates, that they may be handled with ease, and when in season, served with promptness and marked, that the time of their lambing may be known, and the sire of their offspring. Once in two weeks the teasers may be turned in, to find such as have escaped impregnation. It is never a good practice to let the buck run at large with the ewes, but where there are not more than thirty or forty ewes, after the first week, it will do. I depend on a full grown buck for from fifty to one hundred ewes.

Every good shepherd will have a hospital flock, on which he will bestow extra attention, and to which he will add from time to time such are drooping, or are pushed aside from their grain, or are doing poorly from any cause.

Sheds which will keep out the wind and rain are essential. When boards are not to be had, poles and a good covering of straw will be a substitute for one or two winters. I am not partial to close confinement in tight sheds, except it is a necessity to keep the flock from wolves or dogs, or to keep the ewes from exposure in lambing time. Let the sheds be low, and open on the south side, and if the extreme cold for a long period pinches and impoverishes the flock, increase the feed of grain and you restore the warmth and arrest the decline. Cold is favorable to a good growth of wool, but to economize food and insure the health of the flock, the more even the temperature the better.

A good feeder will have hay-boxes and grain-troughs. The flocks may *live* if fed on the ground, but nothing less than keen hunger will force so delicate an animal to take its food from the wet and filth of the yard. The racks will more than pay their cost by a saving of hay in one winter, and if grain not in the sheaf or ear is fed for more than one-half of the season, troughs will be an imperative necessity.

It is a part of good management to indulge the epicurean tastes of the flock. Why should the sheep be confined to the same variety of food from month to month. A treatment which we would deem a hardship? Every pioneer farmer can cut prairie grass, which is a suitable, well-relished food, and Hungarian hay cut early is very nutritious; then he may make up a variety by feeding oats in the sheaf, timothy hay and corn cut before frosts and fed in the bulk. Many well-wintered flocks have subsisted on cut-up corn mainly, which has increased the weight of the fleece above that attained by ordinary keeping full 20 per cent. There is no excuse for having poor stock, if they are fed three times a day and furnished with salt and good water and such varieties of food as our country readily furnishes.—*Hon.* J. B. GRINNELL, *of Iowa, in U. S. Agricultural Report*, 1862.

The Statistics of Sheep Husbandry in the U. S.

The statistics of sheep and wool, like other results of the census, are defective necessarily, and doubtless more incorrect than they should be by reason of carelessness in making returns. Still, a proximate accuracy is aimed at.

In 1850 the census returned 21,723,220 sheep; in 1860, 22,168,105—increase in ten years, 439,885; an increase of two per cent.* In addition to this number, there were returned by assistant marshals, not included in the regular returns, because not owned by farmers, 1,505,810, making the aggregate 23,668,-915.

As compared with the increase of sheep, there has been a proportionally larger increase of wool, indicating a greater weight of fleece. The clip of 1850 was 52,516,959 pounds; that of 1860, 60,511,343 pounds—an increase of

*This differs from the summary in the preliminary report of the census, which contains an error of 1,154,651 in the return for Indiana Other errors, affecting slightly the aggregates for States, will be corrected in the revised and complete census report.

15.2 per cent. This improvement is only a continuation of former progress, which has by no means reached it highest limit.

In 1840, from 19.311,374 sheep were sheared 85,802,114 pounds of wool, equal to 1.84 pounds per head.

In 1850, while sheep had increased 12 per cent. in number, the wool crop had augmented 46 per cent., fleeces averaging about 2.42 pounds. The increase from 1850 to 1860 has been respectable, fleeces averaging 2.73 lbs.

Daniel Needham, of Hartford, Vermont, says there was not a buck in that State that could shear 12 pounds in 1840, while there are those now that yield 20 to 25 pounds, of which 60 per cent. is clean wool.

Ohio, which produces the largest amount of wool of any of the States, with 3,942,929 sheep, in 1850 had a wool clip of 19,196,371 pounds, the fleeces averaging 2.58 pounds. In 1860, with 879,042 less sheep, the wool product was greater than in 1850, (10,648,161 pounds,) averaging 3.47 pounds per fleece, or 34.4 per cent. increase in ten years.

In point of numbers, and, in some instances, in aggreate amount of wool, the older States exhibited a decline in sheep husbandry. This decline has been going on for many years in New England, and amounted to 45 per cent. between 1840 and 1850, and 20.4 per cent. in the last ten years. From 2,213,-287, in 1850, the decrease has been 406,352.

In the four middle States there has been a diminution of 1,060,109 from 4,463,589, in 1850, or 19.4 per cent.

In the ten southern (Atlantic and Gulf) States there was an increase of 352,709, or 9.1 per cent. from 3,840,124 in 1850. Texas alone gives an increase of 683,088, without which there would have been a loss almost as heavy as the actual improvement. In the fourteen remaining (western) States, in which were 9,781,241 sheep, in 1850, there has been an increase of 1,149,664, or 11.75 per cent.

Making a comparison between the twenty-four loyal and the eleven "seceded States," the showing of the weight of fleeces is conspicuous, the difference being doubtless due in part to climate, in part to careless sheep husbandry. In the former, 16,268,718 sheep produced 50,183,626 pounds of wool, averaging 3.08 pounds each: in the latter, 5,013,659 gave 9,784,702 pounds, or 1.94 pounds per fleece. Virginia, with as favorable natural conditions for sheep husbandry as any other locality, averages 2.40 pounds. Tennessee averages 1.81; Texas, 1.91 pounds.

A Good Price.—The Manchester *Mirror* says that the celebrated trotting stallion Ethan Allen and his colt Honest Ethan, have been sold by their owners in New Hampshire to F. Barker, of New York, for $17,000.

Raising Pork.—The Hon. H. L. Ellsworth, formerly Commissioner of Patents, made a well regulated series of experiments in the feeding of hogs. He found that washed and unwashed, and curried and not curried hogs, seemed to flourish equally well. In all of his pens the hogs could wallow in they wished, in water at the lower end of the pen, but the more elevated portions were fleered and so arranged that fluid manures could run to the lower or uncovered portion. In the feeding, however, he found that with cooked food he could raise hogs at far less than half (?) the cost, as they consumed much less than half the quantity. Mr. Mason, of Somerville, N. J., made similar experiments and with corresponding results.—*Exchange.*

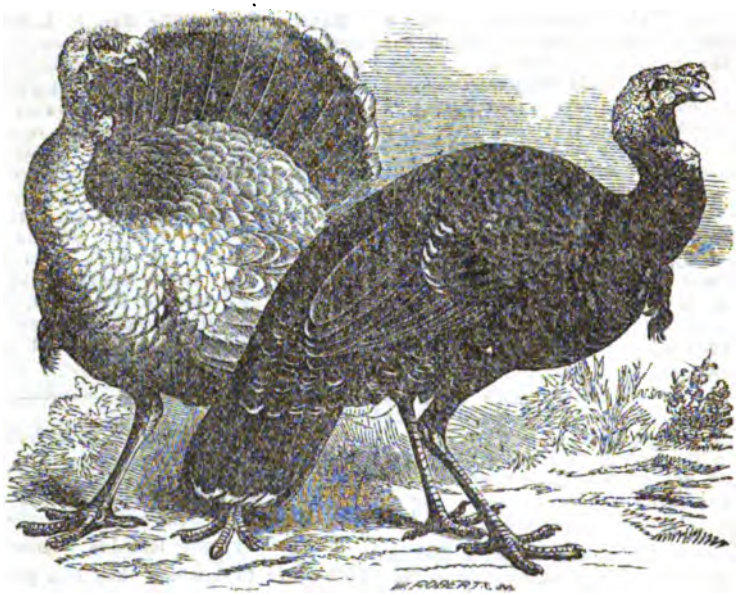
THE POULTERER.

Care of Fowls in Winter.

The farmer who lets his domestic fowls pick their food where they can get it, and roost on the fence or on the trees in his dooryard, will be pretty sure to vote them a nuisance if they should chance to live through the winter and find their way into his garden the subsequent spring; and simply for the reason that they will prove to be a greater plague than profit.

To make the keeping of fowls economical, they require to be warmly housed and liberally fed. The housing should not be in the barn or carriage house, however, and the feeding should not be exlusively upon grain. An excellent and cheap chicken house was described in the last volume of the Farmer, July No., and it only remains, in the further discussion of this question, to say, as to the manner of feeding, Give them regularly of grain, with a supply of chopped waste meat, an occasional dish of chopped cabbage, or other vegetable from the cellar, and an abundance of water.

Thus provided, they will give you good, liberal returns in eggs and palatable flesh. And not only so, they will have formed habits in respect to being gathered up and confined at the proper time, that will enable you to manage them in the summer with much more convenience and economy than heretofore.



The Inevitable Turkey.

It would be curious to know just how this great, coarse, ugly bird came into the favor it now enjoys—how it came to be essential to all festive occasions, and a positive *sine qua non* on those three great holidays, in all Christian lands, Thanksgiving, Christmas and New Year's.

In appearance, clumsy, gawkey and repulsive; coarse and uninviting in the quality of its flesh and eggs; and then about as expensive to keep as a horse, and as destructive in grass and grain fields, or in the orchard, as a breachy ox or a rooting hog, its popularity has always been, to us, an unaccounable fallacy.

True, the turkey is larger than the chicken, prairie or domestic, and will, on that account, of itself, the better supply the wants of an ordinary family, at any given meal; but then it costs two or three times as much, and yet, for several good reasons, is less valuable than its equivalent by weight in fowls of a more delicate and savory character.

But it is, probably, of little use to decry this practice of giving the turkey precedence before all other birds on occasions like those referred to. What is fashionable cannot be easily remedied, however absurd. Only this we would be glad of - that on some great festive day the whole turkey race might become extinct. We'll bear our share of the loss with becoming fortitude.

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

The Fink Apple.

In reply to the query of Mr. Payne, page 414, Vol. XV., we copy from the Transactions of the Ohio State Pomological Society, sixth session, 1854.

"Fink's Seedling, from Mr. Clark, of Perry county. Originated on the farm of Joseph Fink, near Somerset, Ohio. Original tree is in an orchard of seedlings, among which are several others nearly resembling this in appearance and quality. Was first brought into notice by the late W. J. Clarke, nurseryman, of Somerset, about seven years ago, (1847). Small, round and flattish, very smooth, greenish yellow, with a dash of brown red, flavor mild, sub-acid; was awarded the first premium on seedling apples at the late Ohio State

Fair. Is a remarkably long keeper—the fruit of two seasons' growth often having been shown at the same time.

"Was exhibited at former meetings of this Society, and pronounced Tewksbury Winter Blush; *but this was afterwards found to be incorrect*, and its claim to be a seedling admitted."

Mr. Clark stated the season to be in April, May and June; and far better than the Romanite, and as good as Rawle's Janet in its season.

Mr. Bateham said that he considered it the best apple in June that he had seen raised in Ohio, valuable for its long keeping, especially for market.

We propagate the Fink quite largely, and have sent a good many of the trees into Wisconsin. A. G. HANFORD.

COLUMBUS, Ohio.

Planting New Orchards.

The ground should be well prepared beforehand for new orchards, whether the trees are set out in autumn or spring. Unless the soil is already quite rich enough, its fertility should be increased by manure previously applied, or to previous crops; or it may be enriched after the trees are set out, by autumn top-dressing for working under in the spring. The soil should also be well drained and subsoiled, or deeply plowed.—*Annual Register of Rural Affairs.*

Apple and Pear.—Select Lists for the North West.

FRIEND HOYT:—In answer to the request of L. L. F., in your last number, for a list of pears "known to be hardy," &c., and also in response to numerous similar enquiries received by letter, as well as for select lists of apples adapted to this State, and the North West generally, please publish the following list of ten varieties of Pears, eminently hardy and valuable for northwestern culture, as standards:

Early Bergamot, Rosteizer, Flemish Beauty, Belle Lucrative, Seckle, White Doyenne, Sheldon, Onondaga, Lawrence, and Winter Nellis.

To this list add Bartlett, for very dry soils, and limited cultivation, trained low, with some winter protection from sun. Indeed, we cannot dispense with this old variety, as its vigorous growth, early bearing, and showy fruit will render it popular where it is grown with the care mentioned above.

The Buffum is an excellent growing and apparently hardy tree, but not well tested in its bearing quality here.

Dwarf Pear.—From those who have the most experience, and fair success, in dwarf culture, we gather the following list of ten varieties:

Summer Doyenne, Rosteizer, Flemish Beauty, Belle Lucrative, White Doyenne, Louisa B. de Jersey, Beurre de Aryon, Onondaga, Lawrence and Winter Nellis.

In season from August to mid-winter.

For a friend in Outagamie county we have prepared the following list of apples:

First.—For one hundred, all early and hardy, 20 Red Astrachan, 20 Duchesse Oldenburg, 10 Fall Stripe, 10 Autumn Strawberry, 10 Sops of Wine, 10 St. Lawrence, 5 Sweet June, 5 Early Red, 5 Cranberry and 5 Williams.

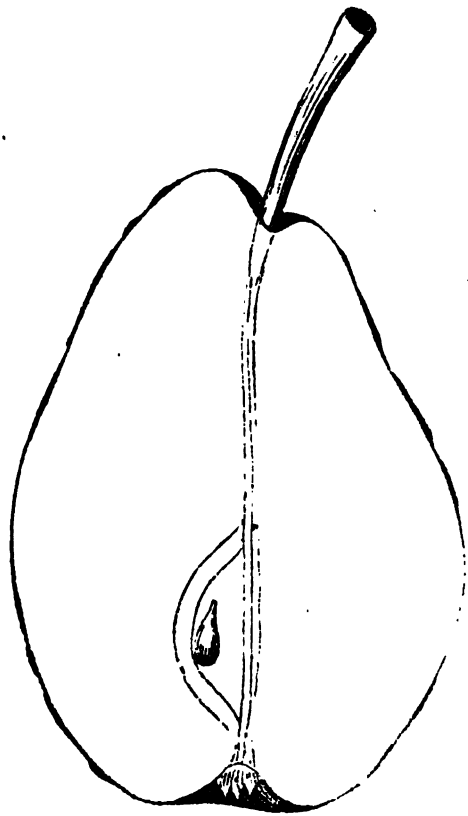
Second.—For light soils, well drained, high and cool locations, substitute 10 each of Early Harvest and K. Codlin, in place of 10 each from the Astrachan and Duchesse; also, 5 Red June and 5 Early Pennock in place of 5 from each of Autumn Strawberry and Sops of Wine.

Third.—*Market List* of ten long keeping varieties:

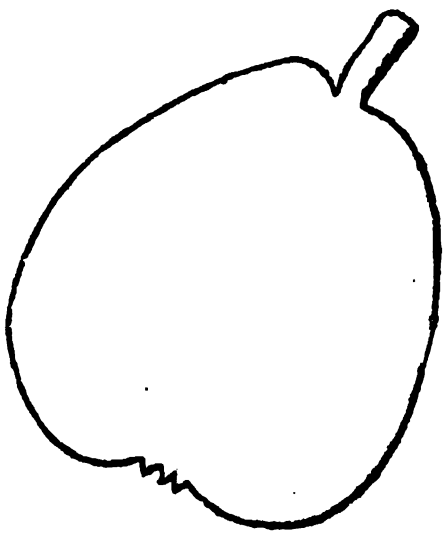
Five Tallman Sweet, 10 Northern Spy, 10 Winter Wine Sap, 10 Perry Russet, 20 Golden Russet, 10 Rawle's Janet, 10 Canada Black, 10 Vandervere, 5 Red Romanite, 10 Dumelows, all hardy and profitable to grow.

Proportions, so many to the hundred.

Fourth.—For high, cool, well-drained locations, it may be found profitable to substitute or add to the foregoing list those excellent old varieties which will not bear the stimulating diet of black, moist soils; as Dominie, Wagner, E. Spitzenburg, N. Pearmain, and also the King, of more recent introduction, but quite promising



THE BARTLETT.



THE BUFFUM.

Fifth—Where only ten varieties are wanted from my list of twenty extra hardy, which you were pleased to publish in the November number, every even or every odd number will make a good list for general planting.

J. C. PLUMB.

MADISON, Wis., Dec. 1868.

In connection with the foregoing, we present cuts and descriptions of the two old and much esteemed varieties mentioned by Mr. P. Descriptions from Elliott's Western Fruit Book.

THE BARTLETT.

English variety; originated about 1770. Now extensively grown and too well known to really need description. The trees are vigorous and early productive of fair, handsome fruit, either on pear or quince root.

Fruit, large, ovate, obtuse-pyriform; surface somewhat uneven; *color*, clear light yellow, tinged with blush in sun when ripe, russet around the stem, and minute russet dots over the whole; *stem*, short, thick; *calyx*, medium, partly open; *basin*, shallow, furrowed; *core*, medium; *seeds*, broad ovate; *flesh*, yellowish white, melting, juicy, vinous. *Season*, middle August to middle September.

THE BUFFUM.

American. Native of Rhode Island. It is very successful wherever grown, admirably adapted to standard orcharding, an upright, strong grower, reddish brown shoots, always productive of fair, even sized fruit; not, however, of more than second rate quality.

Fruit, medium, oblong, obovate; *color*, brownish green, becoming yellow, bright red, suffused in sun; brown dots and a little russet; *stem*, half an inch long, slight depression; *calyx*, with short recurved seg-

ments; *basin*, round; *core*, rather small; *seeds*, dark brown; *flesh*, white, buttery, sweet. *Season*, September.

Bark Louse Parasites.—Letter from Prof. Glover.

Some time since, we received a letter from Dr. J. Tinker, of Clinton, Wis., in relation to parasites of the bark louse, and suggesting that if there were any such insects, they might be imported for the salvation of our fruit trees We forwarded the Doctor's letter to Prof. Glover, U. S. Entomologist, and the following is his answer:

DEPARTMENT OF AGRICULTURE,
Washington, D. C., 11th Dec., 1868.

EDITOR WISCONSIN FARMER,

Dear Sir:—In answer to your query as to whether there is any parasitic insect which destroys the apple bark louse or scale insect, I can merely state that I have seen scales perforated by some parasite, but have not as yet found the perfect fly. Dr. Fitch, however, in his valuable report (see first report, p. 86,) states that under the scales he has repeatedly met with a small maggot, feeding upon the eggs, which are deposited underneath the case or shell, and supposes it to be the larva of some minute Hymenopterous insect, which, when fully developed, eats its way out of the empty shell. You most probably have seen the same parasite in your neighborhood, and can readily find out by examining the coccus with a magnifying glass. If there are any with a small round perforation on the upper side, you may rest assured that there will be no necessity to import.

Believe me to be your ob't servent,
TOWNEND GLOVER.

Marblehead Cabbage.

The *Mammoth Drumhead* variety grows to a large size, on rich land, and with good cultivation. Mr. Ormsbee, our Station Agent here, states that he has grown them weighing thirty pounds, divested of all loose leaves. We have seen him shipping heads to Milwaukee, that would average feur times the weight of those usually raised among our neighbors. The quality is equal to those generally raised, and we think superior.

The *Stone Mason* variety does not grow as large, but has been very reliable, in making good heads. We have never cultivated any variety that would head up so uniformly as this. Under proper treatment, very few plants will fail to make good heads. Quality very good.

L. L. FAIRCHILD.
ROLLING PRAIRIE, Wis. Nov. 15th, 1868.

The Yucca.

A very showy class of evergreen plants, distinguished by long, narrow aloe or palm-shaped leaves.

The family is quite large, most or all of them, we believe, being natives of the southern part of the United States and of Mexico. Nearly all are rather tender for the severe winters of Wisconsin. One of the best, *Yucca filamentosa*, is perfectly hardy, leaves are twelve to twenty-four inches long, starting from the base or crown without stem, rigid, erect, edged with slender, drooping threads two or three inches long. Flower stems attain the height of four or five feet, and cover nearly the entire length with large, bell-shaped, creamy-white flowers. Bloom here the last of June, and continue nearly a month.

A rich sandy loam suits it best, but will thrive in any soil that is not wet. It retains its deep green color through the winter, and is an object of interest at all seasons.

COLUMBUS, Ohio. A. G. H.

A Profitable Orchard.

A gentleman from Chester informs us that Mr. Joseph Robinson, of that town, has an apple orchard, planted and reared by himself, covering but two acres of land, the product of which, this year, is *nine hundred bushels*, exclusive of a second picking of inferior quality. Mr. Robinson has sold four hundred bushels for cash down at $1 per bushel, reserving five hundred bushels for future use. The entire income this year will not be below $1,000,

and at far less labor than is bestowed upon a small farm —*N. H. Statesman.*

The Jonathan Apple.

We regard this as one of the very finest of winter apples for Western culture. The tree is occasionally ranked among those not quite hardy, but we always found it entirely so.

It is of slow and slender growth in the nursery, a hard tree to get up, and, of course, not *very* popular with the nursery men, nor, indeed, with their customers, except those who know the *fruit* and are familiar with the habit of growth of the variety.

In the orchard it forms a neat, round-headed tree, of medium size. Bears young, and abundantly. The fruit is very uniform, above medium size, of a deep crimson color on yellow ground; flesh white, tender, juicy, sprightly, reminding one of the Spitzenburg, of which it is a seedling, and, as an eating apple, to our taste a decided improvement on its parent.

The fruit is very evenly distributed over the tree, and hangs with great tenacity. In use all winter.

The receipt of some fine specimens from our old Waukesha orchard, has suggested this notice of the Jonathan Apple, just now coming into use. A. G. HANFORD.

COLUMBUS, O., Dec. 1868.

THE BEE-KEEPER.

A Broadside Against Patent Bee-Hives.

MR. EDITOR:—I subscribed for the FARMER a few days since, thinking to enquire, through its columns the best kind of bee-hive, as I wished to make my hives this winter for the coming bee season. But before I had time to make the enquiry, I borrowed of a friend the XVth volume of the FARMER, and learned from its Nos. that hives with movable frames have been and are now being "puffed" into notice [Not much, just now.—ED.] by those interested as agents and those who have bought rights and can "parrot" the language of the gifted vendor.

Without commenting upon the fine arrangements and easy practicability of the good talkers' wares, I purpose to give the readers of your magazine my experience and observation with movable frames, or comb guides, which, one year ago, I supposed were just "the thing."

I have used the Lee hive, described in the July No., the Kelsey hive—many of which have been under my frequent observation the past season—also, the Langstroth hive, with which I am less familiar than with either of the others, but sufficiently so to know that all movable comb guides are about the same, and the working of the bees in them all alike.

Now everybody who has ever had anything to do with bees, knows the object and design of the comb guide; which design I consider very excellent, *if* the occupants of the hive would carry it out well. But, do they do it? My observation is that I have yet to see those "straight, uniform" combs spoken of by Mr. Wilcox in the July number of the FARMER, or that "perfect control" of the bees and comb that Mr. Stebbins speaks of in the August number. In the Lee hive you may find the comb commenced properly, but as they lower they are crooked or serpentine, or perhaps one or both the outside combs will run out; because being commenced first, or made thicker as they lower. Sometimes a comb is started on the side of the hive; sometimes they are auger-shaped, not following the comb on one side, and sometimes they build crosswise of the frames

In all these cases, I consider the hive with movable frames but little better than an old fashioned log or box hive, as you will have to take them to pieces before the comb can be removed.

In the Kelsey hive, with the division board; (two apartments with five frames in each apartment) I have seen six combs to five frames; also four combs to five frames, the combs being unusually thick and some crooked; besides the frames being all waxed tight in all the hives that I ever examined, and in some so tight that the frame would part be-

fore moving. Now if we wish to move some frames to a new hive, to divide one, or draw some to help a weak stock, you can imagine the difficulty better than my poor language can express it.

I will speak of but one more obection, *which is not all:* The dividing of the Lee hive is bad on many accounts, and some who have bought the right to make and use, make them *without the division.*

Now if I could see some of the practical working of the movable frame system that comes up to the theory given by their patentees and *good talking* vendors, I would continue their use; but as yet I am ignorant of the reason why my bees and my neighbors' will not carry out the design of those great apiarians.

The FARMER speaks of the Morehouse hive. I would like to examine a sketch of one from some one interested for it.

J. A. SHAW.

DARTFORD, Dec. 14, 1863.

MECHANICAL AND COMMERCIAL.

The Yankee Milking Machine.

We have heretofore referred to the construction of this ingenious machine, and to the fact of its attracting great attention at the Great Exhibition at London, in 1862, where we had the pleasure of seeing it operated, on several occasions. Our remarks then made were the cause of frequent enquiries since, as to its success, on further trial, and as to where the machines could be had. But we have not as yet been able to fully satisfy ourself of the practical utility of the invention, and hence have been cautious about giving it an endorsement. Indeed, we do not know that it has been subjected to thorough practical tests in this country—a circumstance which of itself stands against it.

From the following extract, taken from the Scottish Quarterly Journal of Agriculture, it will appear that the British farmers have, in this respect, been more fortunate. After vouching for the care and precision of the trials to which the machines were subjected, the editor of the Journal says:

We have lately had an opportunity of working this novel invention, which has been prominently brought before the public. Everybody who has read a description of it is aware that the machine consists of a tin can, on the top of which is placed the milking apparatus. This apparatus, again, consists of four finger-pieces made of india-rubber, and having wire-doil for increased strength and stability. The teats of the cow being fitted to these finger-pieces, the operator works a two handled air pump, which sucks the air from inside the body of the machine, which is in direct communication with the finger-pieces; and by the external pressure of the air on the finger-pieces, the milk is forced out of the teats.

We have made four separate trials with the machine, and here note the result for the information of those who may feel interested in the subject. We may remark that we worked it with our own hands on each occasion. At first we experienced some difficulty in using it. It is not as easy as might be supposed to fit the finger-pieces on the teats air-tight; and when they are so fitted on, a restive animal is liable to throw the whole out of gear.

We attempted the milking of three cows on the first trial. From one which was milking from 5 to 5½ quarts at a meal, we obtained 4½ quarts; another, which has very uneven teats, we could not milk at all; and from the third, which was only milking 2½ quarts at a meal, we were only able to obtain a little more than a quart. All our subsequent trials have been attended with similar results. The conclusions to which we have arrived in reference to this machine, are the following:

1. It will not extract all the milk from cows. If it should be found to answer in every other respect this is no fatal objection to its use, as the strippings could be milked by hand.
2. Cows that have good teats, well set in the udder, can be milked to within half a quart of their full milk.
3. Cows whose teats are uneven can with difficulty be milked.
4. We doubt very much if any amount of experience and perseverance will overcome the difficulty of milking kicking or restive cows.

[From the Merchants' Magazine,

Our Foreign Trade Passing into Foreign Bottoms.

In a war like the present, of course every interest must suffer, and yet it seems strange that two or three privateers should have been able to almost destroy our shipping interests. One would suppose that with a navy, such as that of which we now boast, some protection might have been extended to our foreign trade. Or, if the Navy Department now has no ves-

sels fast enough for the purpose, certainly there is sufficient talent in the country to build them. There was a time, and it was not a very long while ago either, when Young America contended with the "mistress of the seas" for the supremacy, with every promise of wresting the sceptre from her. Our ocean steamers were the wonder of the world. In speed, size, and equipment, they left their British competitors far behind. Is there any reason why we cannot do again what we have once so well done?

Last month we published a list of the vessels captured by these privateers, but that list gives a very imperfect idea of the actual loss we are sustaining. It may surprise many to know that the forced sales to foreigners of vessels built and owned here has been going on steadily for a long time past, and now is proceeding with a celerity that bids fair to change the ownership of the finest bottoms in the United States mercantile marine, and to leave nothing under the American flag worth capturing. The following list of American ships lately sold by Mr. George Croshaw & Co, of London, will show what is being done in this respect at the present time.

[We omit the list for want of room. Suffice it to say, the number of vessels which have thus gone out of our hands is NINETY-TWO.—ED.]

Nearly all these are well known first-class vessels. Hitherto their flag has been an United States advertisement in every sea under the heavens, but henceforth they are destined to be known only as English, or other foreign property.

We are indebted to the *Journal of Commerce* for the following table, showing to what extent the carrying business had changed up to June 30th. The figures are for the same quarter in each of the two years:

FOREIGN TRADE OF THE PORT OF NEW YORK, FOR THE QUARTER ENDING JUNE 30TH.

		In American ves.	In Foreign ves.
1860.	Val of goods im.	$35,197,101	$18,142,622
	" " ex.	29,401,225	12,775,229
Total trade,		$62,598,326	$30,918,051
1863.	Val of goods im.	$12,731.819	$30,189,557
	" " ex.	10,772,011	35,750,296
Total trade,		$23,403,830	$65,889.853

We think that no American can study these figures without a painful sense of humiliation. In 1860 the quarter's trade was $62,-000,000 under our flag, and $30,000,000 under the flags of all foreign nations. This has rapidly changed as the war continued, until, for the last quarter returned, we find $65,-000,000 under foreign flags, and only $23,-000,000 under our own flag. Thus shippers all over the world have been deterred by fear of capture from the employment, as carriers, of American ships. It may be that our Navy Department has done all it could to protect our commerce; but a contrary impression prevails among those who are most interested.

SCIENCE, ART, STATISTICS.

Foreign Wool Trade of New York.

The *Journal of Commerce* publishes the following statement of the imports of foreign wool at New York for the first six months of the current year, and also for the same time in 1862. The comparison shows the imports of the first half of this year to be more than those of the same time in 1862 by 27,094 bales, 11,509,348 pounds, and $2,081,056 in value. At this time last year nearly all the new clip of domestic wool had been bought of the growers at 35@45 cents, the latter figures being the price at that date, and foreign wools were held at prices which made them dearer than domestic. But at this date the facts are reversed. The new clip is nearly all held by the grower at 65@75 cents, and the stock of foreign is offered at rates which make it cheaper to the manufacturer. And as there are few woolen fabrics which cannot be manufactured from foreign stock, but little domestic will be taken while the present prices remain. The stock of foreign wool in this market at the present time is considerably larger than that of this date a year ago, and it is estimated that the domestic clip of this year is fully twenty-five per cent. larger than that of 1862.

Irish Emigration.

The large and continuous emigration from Ireland to the United States is naturally attracting a considerable share of attention. Week by week, and month by month, the people leave for New York, some in returning grain ships, some in steamers, some in stowaways, as fast as opportunity serves. The London *Times* says, too, that it is the best portion of the Irish population—the young, the hale, the hopeful, the energetic—and that nothing will stop them. The strongest influences are weak and ineffectual before the all engrossing thought of America.

In this connection, the great decrease in the population of Ireland which the census returns just issued show, is of interest. For instance, in the Province of Connaught there were 1,418,782 inhabitants in 1841; in 1851 there were 1,012,006; and in 1861 there were but 818,125. The same return contains a summary for the whole of Ireland. It shows that in 1841 the inhabitants numbered 8,174,-031; in 1851 they numbered 6,668,579; and

in 1861, but 5,798,967. This gives a decrease of nearly two and a half millions of people in twenty years.—*Merchant's Mag.*

THE MINER.

Lake Superior Silver Lead Discovery.

The *Houghton Gazette* says that the excitement consequent upon the first report that silver lead had been discovered in the vicinage of Marquette has assumed the phase of reality. Specimens of the ore have been brought in by two or three persons, and an analysis made which proves beyond doubt that they are unusually rich in silver. The lowest return from the assays was an average of about eight pounds of silver to the ton of lead. The highest was twenty-five pounds. These are extraordinary yields, and the only question remaining to be solved is, whether the veins containing the ore are of sufficient size to warrant mining. Both of the gentlemen who made the explorations and obtained the specimens, aver that the veins are of greater width and length than is necessary for remunerative mining; in fact, they give a width which would be double that often found and opened to a profit. The location of these deposits is around a small lake, in the Northwest quarter of Town 49 Range 28 West. The formation is granite, and has long been considered metalliferous. The veins are either fissure or gash, though most probably the former, as the explorers state that they have traced them for a considerable distance, and find they have a regular course between North and East.

There are now four companies organized on the land entered in the vicinity of the lake, now called Silver Lake, two of which are organized under the laws of the State. As to the value of these lands, but little is really known beyond the fact that the Eldorado was located by Mr. Martin, the explorer, and a large share of the stock is held by him and his friends, which is presumptive evidence that it is the best he has seen. The silver lead was also entered by Mr. Smith, the explorer, who is largely interested in it. The Silver Lake embraces eight or ten quarter sections scattered around the lake, and, when the country is explored, can hardly fail to be equally rich with the rest. Some fine specimens have been brought in from these lands.

☞ The silver product of Nevada territory will this year, it is estimated, amount to $15,000,000, and in two years more, it is thought, it will be fully $30,000,000. A writer in *The San Francisco Bulletin*, who has studied the subject on the spot, holds that Nevada is the "richest silver-bearing country in the world. Unlike California, her wealth 'is not where you find it,' but her 'silver runs in veins.'"

EDUCATIONAL.

Agricultural Colleges of the United States.

AS SEEN BY THE EDITOR.

NO. IV.—AGRICULTURAL COLLEGE OF MARYLAND.

This institution was incorporated in 1856, by an act of the Legislature which provided for an endowment of $6,000 per annum: provided, that within two years—or before the first day of February, 1858—$50,000 should have been raised by subscription, that the farm should have been purchased and the college edifice erected. The farm was to consist of at least fifty acres, and the building to be suitable for the beginning of the work of education in accordance with the proposed scheme.

The $50,000 was to be suscribed in shares of $25 each, and the trustees, twenty-two in number—one from each county and one from the city of Baltimore—were to be elected by the stockholders; the first board to continue in office for the term of five years, their successors for two years. This law was subsequently amended, reducing the shares of stock to $5, and providing for the appointment of three additional trustees—one from the District of Columbia, one from the Eastern shore and one from the Western shore.

The college was located ten miles north of Washington City and within half a mile of the Washington and Baltimore Railroad, on a handsome farm of over two hundred acres, and within full view of the railroad above named. It is likewise traversed by the Washington and Baltimore turnpike, and is, therefore, easily accessible, both by public and private conveyance.

We had heard it spoken of as located at or near Bladensburgh, and so got off the train at that depot instead of at the college station, immediately opposite the college edifice. This blunder necessitated a walk of some two miles and a half, a task which most visitors would probably be careful to avoid.

The college building already completed is but about one-third of the whole, according to

the plan, and cost $45,000. It enjoys a commanding site and seems to be well adapted for the intended use. It is substantially built, measures 120 bv 54 feet on the ground, and is five stories high. When the edifice is completed the present building will be the southern wing. The basement, which is light and dry, includes the kitchen, dining-room, pantry, wash-room and the laboratory, while the upper stories furnish apartments for the President's private use, for recitations and lectures, for libraries and literary societies, and dormitories for the pleasant accommodatlon of nearly two hundred pupils. Every part of the building is so constructed as to insure good ventilation and to afford the necessary facilities for warming by steam or hot air. The broad and well-lighted halls give cheerfulness to the whole interior; which, although it is so important, seems not to have been sufficiently regarded by many under whose direction our college edifices are designed and built.

In addition to the building above described, there is a comfortable brick dwelling for the Director of the farm, with suitable barns and other out-buildings; also three pleasant cottages on beautiful elevations near the college, for the families of Professors. The farm of 200 acres presents a variety of soil, and is mostly well improved, though not yet, by any means, a *model* farm. The apple and peach orchard, in the rear of the college grounds, appeared to be in a thrifty condition, and has probably yielded much fruit the past year. The vegetable and flower gardens showed that horticulture and floriculture were under the direction of a competent professor, and were not without friends among the students.

EDUCATIONALLY CONSIDERED,

the Maryland Agricultural College accords very nearly, in plan, with the People's College, already reported, except that it attaches less importance to the regular, unfailing manual labor of the students, *as a means of practical instruction*. In the language of the Board of Trustees, this college "aims not merely at professional instruction in agriculture. The plan undoubtedly embraces such instruction, but it is far more comprehensive. It claims for the farmer or mechanic, or for whomsoever its care may be sought, first, his development as a man, trained and fitted, to the full extent of his capacity, for all the duties of a man and a citizen. To this end, it offers him the advantage of the most approved systems of moral and intellectual culture, and superaded to these, *for his physical training*, moderate and systematic exercises in the field and in the workshop, *as the best means of laying the foundation of future health and energy, in a well-developed, robust physical constitution*." [The italics are ours.]

A preparatory department is embraced, and the curriculum of study includes the various branches commonly taught in all the higher colleges of the country.

Pupils are received from twelve years old and upwards, and are classified according to their advancement. Terms for the scholastic year, including all the expenses, except fer books and medical attendance, $250.

Thus planned and thus established, this institution has been in operation since September, 1859, with an average attendance of some fifty pupils. At the date of our visit, June last, there were sixty-eight pupils in attendance, and the work seemed to be going on prosperously, notwithstanding the distracted condition of the State and country. The Faculty, with President, Henry Onderdonk, A. M., at the head, are men of ability and high attainments, zealously devoted to the interests of their respective departments, and all anxiously and hopefully looking forward to the good time coming, when the war shall have ended in the vindication of the constitutional authority of the Government, and when the great industrial and educational enterprises of the country shall again have unimpeded progress.

In the popular Professor of Intellectual and Moral Philosophy, English Literatue and Political Economy, we were pleased to recognize our old-time friend and editorial brother, Nicholas B. Worthington, A. M., late Secre-

tary of the Maryland State Agricultural Society, and Editor and Proprietor of the *American Farmer*. We found him altogether at home in his new field of labor, and certainly very agreeably so in the midst of his amiable family.

Prof. Glover, of the Departmet of Natural History, Botany and Pomology, is also Entomologist for the United States, and is probably the most thoroughly scientific Entomologist in this country. His splendid collection of models of fruit—the same that used to be in the Patent Office—together with large collections of insects beautifully classified and arranged for the use of the student, are in the cabinet of Natural History at the College, and afford unusual facilities for the study of these particular branches of science.

The laboratory we failed to see, and are not, therefore, able to speak of it from personal knowledge. Prof. St. Johns, who presides over the Department to which it belongs, is zealous in his work, and has the reputation of being well qualified for his important position.

All in all, we were pleased with the condition of the State Agricultural College of Maryland, and shall expect it to prosper yet more and more, as the people of that State come to appreciate better than now the spirit and high value of such an institution.

Massachusetts Agricultural College.

The Trustees of the Massachusetts Agricultural College met yesterday for the purpose of organization, in accordance with the law passed at the last session of the Legislature. His Excellency Governor Andrew was chosen President, Hon. Allen W. Dodge, of Hamilton Vice President, and Charles L. Flint, of Boston, Secretary. Among other business transactions was the appointment of a committee of five, to take in charge the raising of subscriptions to the fund required by law to put the Agricultural College in operation, and to consider the subject of a location, to receive proposals concerning the same, and to report to each meeting of the Trustees what progress they may make from time to time. This committee consists of Marshal P. Wilder, H. H. L. Whiting, Phineas Stedman, Nathan Durfee and Henry Colt.—*Exchange.*

MISCELLANEOUS.

"Stonewall" and His Sister.

BY MRS. HOYT.

Two and two make five. Don't you believe it? Well, I do, only I would place a dash after the five and write—*sometimes*. But I will not stop to argue this particular statement of a fact that, all our theories to the contrary, faces us from every scene of observation and page of history. It is to the credit of human nature that we are not, after all, so much surprised to see this two and two, that usually make up the substantial four of common people, now and then standing out in the unmistakable five of a great genius, as we are shocked to note the contrasts of honor and dishonor brought out in the lives of children of the same family.

As a general rule, I would count it a violation of good taste, if not of honor, to give publicity to either the name or the incident in the life of any one without asking approval. But when a person has forfeited all right to public or private consideration, as did Gen. Jackson by his treason, and at the same time commanded the admiration of both friend and foe, as has no other upon either side of this struggle, the case seems to be changed. And the sister of this great, bad man, has she not, in the signal contrast of her course with his, become, also, an inheritance of the people?

During the summer of 1862, I found Mrs. Arnold, only sister of the famous Gen. Stonewall Jackson, living at her home in Beverly, Randolph county, Virginia, the wife of a wealthy and conservative Unionist, the family upon both sides being Virginian. To my surprise, I found her upon our side, and, from friends who had known her before the war, learned that this was not the subterfuge of interest, or the necessity of circumstance, but that which she had maintained previously, and had adhered to during all the trials that came to those of that unhappy State who did not approve of the madness of secession.

Circumstances of accident and ill health

detained me for several months in the place where I had the opportuity of observing her devotion to the cause which, sacred to us all, had become doubly so to her through the fire of sacrifice. In addition to the hospital, which was the object of her faithful attendance, her own home was open to those requiring special care and that tender nursing that only a home can furnish. So well was Mrs. Arnold known, and so large the generosity of time and means with which she met all cases of need, that no courier was dispatched to know if this or that one could be received; but to Mrs. Arnold's or to the hospital was decided on the spot, according to the preference of the wounded or the urgency of his case. Many a night did that royal woman remain during all the weary hours, from twilight to dawn, in the hospital beside the bed of some dying soldier who, in the delirium and dimness of his last moments saw, in the angel at his side, a mother, sister or wife, and was comforted. I shall never forget how gratefully she learned that I was so much better that my sister, who, with myself, were temporarily there, could accompany her upon one of those missions of love. She told me that this was the first time any lady had shared with her these vigils between the living and the dead. Yet in Beverly at that that time, and all the time, were scores of ladies who, with their husbands, had secured the protection of Federal bayonets by swearing themselves into the faith of the Union. In this, as in many other instances, I had occasion to note the difference between the allegiance of an administered oath and that of adherance to a principle.

I have spoken of the husband as a conservative Union man. At the time of the greatest peril, when the ordinance of secession was pending and the hot blood of both sides at its height, Mr. Arnold went, with his life at stake, and voted against it. No man's vote could be folded and dropped in silence, *viva voce* being the law of the land. Since that time he had slept, wakened, and read the newspapers, regularly. Twice had the rebel, and then for the third time Federal, arms had possession of Randolph and the adjacent counties lying upon the border of that stoutly contested question of Virginia one, or eastern and western. His age protected him from bearing arms, and whether held by Union or confederate troops, he sat amid his vines and read the papers. Did his negroes run off, his crops fail, or somebody else gather them? he was busy reading the news, saying to neither side, Why do you? or, Why don't you?

His age, dignity of character, this persistency of inoffensiveness, with the fact of his near relationship to the greatest of rebel Generals, made him and his property comparatively safe amid the ravages of the Southern mob. From our forces, all alike had protection, provided no out-breaking treason was thrust before the authorities.

Mrs. Arnold was, as are all really admirable persons, modest and unpretending. She was the only native Virginian in whom I never detected the slightest vaunt of the F. F. V.s. This, with the fact of her aristocratic family connections and the independence of her position, was remarkable. To the many with whom she came in contact, she never spoke of her brother save in response to enquiries; but as our ripening friendship made it admissible, he frequently became the subject of conversation.

One fact, quite different from any that has been publicly reported of him, thus came to my knowledge. When the war broke out, he was filling a professorship in the military school of Lexington, East Virginia, and during the time previous to the secession of the State, he wrote frequently, and with the logic of strong argument and an earnest soul, to Mr. and Mrs. Arnold and other friends in Western Virginia, which was his native section, urging adhesion to the old flag and the government of the Union. So clearly and so ably was this duty set forth, that it carried with it conviction, and being much loved wherever he was known, he thus exerted a large influence in that section of the State.

In this, as in all things, he was a devotee, avowing his faith that, continuing to seek divine guidance, he should not fail to be led aright.

Quite suddenly those letters stopped, and after a time of painful suspense, Mrs. Arnold learned with dismay, from rebel papers, that this almost idolized brother had taken a command in that infamous service. From that event up to the date of our acquaintance, no personal explanation in regard to his course had reached her.

The career of mad devotion to the rebel cause, which to the last he pursued with such eminent success, proves one of two things: Either Gen. Jackson was mistaken as to the sincerity with which he supposed he was seeking the right, or, this once, God was on the side of the devil.

The joy with which I heard of the death of this leader of the traitor hosts, was tempered by but one sad thought—that of his noble sister; disappointed in the hope of seeing him restored to a sound mind and the country and family he had so madly betrayed. But I love my country more than I do any friend, and I was glad, and am glad to see the enemies of my country perish. No hero-worship, of which I have my share, can cloud the heaven of my rejoicing when a man accessory to the slaughter of the brave sons of the Union goes down in the red surge of the battle he has led. The sister and the brother. What a contrast! Honor to whom honor, and to whom shame, however sternly, let it be justly written.

NIGHT.

O night! most beautiful! most rare!
  Thou giv'st the heavens their holiest hue!
And through the azure fields of air
  Bring'st down the golden dew.
For thou, with breathless lips apart,
  Didst stand in that dim age afar,
And hold upon thy trembling heart
  Messiah's herald star.
For this I love thy hallowed reign;
  For more than this thrice blest thou art;
Thou gain'st the unbeliever's brain
  By entering at his heart. T. B. READ.

Happiness grows at our own firesides, and is not to be picked in a stranger's garden.

Notables whom we Saw in Europe.

NUMBER I.

LORD BROUGHAM.

During our late visit to London, on occasion of the Great Exhibition, and in the course of our travels in Western Europe, it was our good fortune to see, and in various ways come in immediate contact with, many of the most distinguished personages of the old world. And inasmuch as neither the natural scenery of the countries through which we passed, nor the wonderful products of human industry gathered at the world's great business centre, may be supposed to be more interesting to our readers than the notable men and women of the age, it has occurred to us to publish sketches of a number of those whose lives and personal characters promise the most entertainment and profit. The series will include characters essential and characters accidental; the first class embracing such as have enstamped themselves upon the history of the age by virtue of power inherent in themselves; the second class notable persons who are mere creatures of circumstance, such as kings and princes.

The story of even the greatest man's life may be briefly told, but it is very rare, in the history of the human race, that a single man has been permitted to grasp, within his own life time, so many events of great importance

and to leave his impress upon so much of the all that has been accomplished for the progress of man as has Lord Brougham.

Think of it! Fifty years ago the leading scholar, orator and statesman of Great Britain, and yet to-day strong physically, and in perfect health; clear and vigorous in intellect, still holding his high place in the forum of that great nation, and on the rostrum, as a gallant leader in all the great social and political reforms; and still prominent among the active literary and scientific men of this teeming, working age! Can the life of such a man be other than full of rich and profitable lessons?

Let us glance a moment at the history of his career.

Born September 18, 1778. In 1796–7–8 wrote important papers on light and on difficult mathematical questions, which were published by the philosophical societies of England and France. Studied law and was admitted as a member of the Edinburgh Society of Advocates in 1800; in which year, also, he helped to start the Edinburgh Review, and was called to the English bar. In 1810 entered House of Commons, as member for Camelford; took position against the Government party, demanding the suppression of the slave trade, Catholic emancipation, various reforms in the government of British India, and the abolition of flogging in the army. From 1816 to 1820, in connection with duties in Parliament, gave himself, wish great zeal and ability, to the organization of important agencies for the advancement of popular education. In 1820 espoused the cause of Queen Caroline and won great applause by his masterly defence of her rights. In 1823 helped to found the first Mechanic's Institute. In 1825 published works on the Education of the People, which went rapidly through twenty editions; was elected Lord Rector of the University of Glasgow over Sir Walter Scott, the opposing candidate, and initiated the London University, on the new basis of freedom from religious tests and preferences. From 1825 to 1830 devoted himself to law reforms, indicating in his great speeches nearly every imporportant reform since made. At the general election on the accession of William IV. to the throne, stood for Yorkshire. Was now known as "Glorious Harry Brougham, the Leader of the People." In 1830 became Lord Chancellor, and introduced great reforms in the matter of Government expenditures. In 1834 went out of office with the other members of the whig ministry; since which time he has devoted himself, with unremitting energy, to the interests of popular education, the abolition of slavery and the slave trade, the repeal of the corn law, and to the advocacy, in the House of Lords and before the people, of such measures as have tended to the prosperity and glory of the British nation; thus fairly winning, and by common consent wearing, the proud title of "Patriarch of Law Reform."

Lord Brougham is the author of numerous works of great value on educational, scientific, religious and political themes, and still continues, with unwearied pen and unfaltering speech, to employ his keen and powerful intellect and his vast stores of accumulated knowledge for the good of his country and the world.

After this remarkable record of accompishment, the question naturally arises, How has it been made possible? The answer is, by virtue of extraordinary natural endowments and of fortunateness of time.

Born of healthy, long-lived ancestors, Lord Brougham was even more fortunate in his physical endowments than were any of them. As he stands to-day, he is full six feet and perfectly erect, with broad shoulders, deep chest and limbs more than usually muscular for a man eighty-five years of age, and possessed of more vigor and energy than half the men of this country at forty-five. There is, at times, a little tremulousness of the head, showing that his strong and vigorous frame is not entirely reckless of the fleeting years, and his fine head of rather wilful, wavy hair is sprinkled with frost; but otherwise there

nothing, in either his appearance or gait that would mark him as a man of over fifty years.

What has been the force of his vitality and power of endurance may be judged by the historic fact, that, when a candidate for parliament in Yorkshire, in 1830,—at which date he was over fifty,—he travelled, by stage, 120 miles and spoke at eight election meetings in one day, and yet appeared at the York assizes next morning perfectly fresh and ready for more work!

His habits of body have always been perfectly temperate and systematic, so that what of health and strength nature gave him has been so remarkably preserved.

To the physiognomist, his face, as presented by the artist, speaks for itself. Though the portrait hardly does him justice, it is, nevertheless, quite correct, and would enable a stranger to identify him in the streets of London or anywhere else.

The head, unusually large, long and angular—as if hewn out for a special purpose—and with decided prominence above the eyes; the full, clear, steady eye; the large and strong, bony nose, square at the end and broad in the nostrils; the breadth of the mouth; the length, fullness and firmness of the lips; the prominence of the chin, and the intellectual, resolute, severe and commanding expression of countenance,—all these would satisfy you, at a glance, that Brougham is great by endowment, and not by accident. While the shape of his head above and posteriorly could hardly fail to suggest to the student of phrenological science those pure and lofty moral principles which have made him so signally eminent as the heroic, persistent champion of the cause of truth and justice. He has ever been unapproachable, by even the most shrewd and influential schemers, for measures not demonstrably right, and the charge of dereliction of duty was never made against him by even his bitterest enemies.

The impartiality of his justice is well illustrated by the fact that, when Lord Chancellor, he instituted and inflexibly carried forward, reforms in law which diminished his own income by an amount equal to £700 per annum.

As a writer and orator, Brougham is characterized by order, logical power, perspicuity, accuracy, and persuasive eloquence.

It was our pleasure to hear him several times at the sessions of the Social Science Congress, of which he was President, and on each occasion he well sustained his high reputation. His voice is stll full and heavy, his utterence clear, distinct and pretty rapid, his gesticulation earnest, emphatic and forcible; the clenched fist being steadily and resolutely shaken whenever he felt disposed to prove himself indisputably in the right.

Socially, Lord Brougham is dignified and stately, yet gracious, genial and entirely free from that self-consciousness which unpleasantly characterizes too many men after they have attained to admitted greatness. It was our privilege to speak with him several times on educational and political subjects, especially on the progress of free institutions in England and America, and we were each time more and more favorably impressed by the greatness of his genius and the real nobleness of his nature.

"But tell us," says one, "of his present attitude towards America.'

Very well. Brougham has never been an out-and-out radical; neither has he been a crystalized conservative. His reforms were always conservatively planned and carried on. Things must be done decently and in order. Haste and unauthorized instrumentalities are unbecoming and unworthy of great ends. This seems to have been his constitutional creed, and his life has always been consistent therewith. He was a reformer, but would always insist that his reforms be constitutionally effected. And so, when the repeal of the corn law was agitated, he fought the consrvatives with one hand and restrained the radicals with the other; denouncing the law and laboring like a Titan for its repeal, and yet denouncing the League as unconstitutional and warning the people against the danger of popular combinations against the supreme authority of the Goverment.

It is because of this natural conservatism, made still more conservative, no doubt, by age, that he now fears—or did a year ago—the going down of our Republic in anarchy and ruin. To us it seems absurd that he should doubt of our ultimate success; to him, ignorant as he must be, to a considerable extent, of the real character and temper of our people, his misgivings are founded in reason illustrated by history.

That he is really a friend to America no one can reasonably doubt, who remembers his matchless eulogy on Washington, and the readiness he has ever shown to avail himself of the valuable results of American genius, even to the introduction of our civil code of procedure into England.

If Lord Brougham were strong and brave with *all* the strength and courage of a quarter of a century ago, he would unquestionably be our ablest advocate and defender to-day; as it is, it becomes us to remember his long life of heroic deeds, to think of him gratefully as the scholar, orator, statesman and philanthropist of two full generations, and to cover this last and almost single error of a sublime life with the mantle of a noble charity.

A Compassionate Judge.

A very learned and compassionate judge in Texas, on passing sentence on John Jones, who had been convicted of murder, concluded his remarks as follows:—"The fact is Jones, the court did not intend to order you to be executed before next spring, but the weather is very cold; our jail, unfortunately, is in a very bad condition; much of the glass in the windows is broken; the chimneys are in such a dilapidated state that no fire can be made to render your apartments comfortable; besides, owing to the great number of prisoners, not more than one blanket can be allowed to each; to sleep sound and comfortably therefore would be out of the question. In consideration of these circumstances, and wishing to lessen your sufferings as much as possible, the court in the exercise of its humanity and conpassion, hereby orders you to be executed to-morrow morning, as soon after breakfast as may be convenient to the sheriff and agreeable to you."

BARBARA FRIETCHIE.

The *Atlantic Monthly* for October furnishes the following story of Lee's invasion of Maryland, by Whittier:

Up from the meadows rich with corn,
Clear in the cool September morn

The clustered spires of Frederick stand,
Green-walled by the hills of Maryland.

Round about them orchards sweep,
Apple and peach tree fruited deep.

Fair as the garden of the Lord
To the eyes of the famished rebel horde,

On that pleasant morn of the early fall,
When Lee marched over the mountain wall—

Over the mountains winding down,
Horse and foot, into Frederick town,

Forty flags with their silver stars,
Forty flags with their crimson bars

Flapped in the morning wind; the sun;
Of noon looked down and saw not one.

Up rose old Barbara Fritchie then,
Bowed with her fourscore years and ten.

Bravest of all in Frederick town,
She took up the flag the men hauled down.

In her attic window the staff she set,
To show that one heart was loyal yet.

Up the street came the rebel tread,
Stonewall Jackson riding ahead.

Under his slouched hat left and right
He glanced: the old flag met his sight.

"Halt!"—the dust brown ranks stood fast.
"Fire!"—out blazed the rifle blast.

It shivered the window, pane and sash;
It rent the banner with seam and gash.

Quick, as it fell from the broken staff,
Dame Barbara snatched the silken scarf.

She leaned far out on the window sill,
And shook it forth with a royal will.

"Shoot, if you must, this gray old head,
But spare your country's flag," she said.

A shade of sadness, a blush of shame,
Over the face of the leader came.

The nobler nature within him stirred
To life at that woman's deed and word.

"Who touches a hair of yon gray head
Dies like a dog! March on!" he said.

All day long through Frederick street,
Sounded the tread of marching feet.

All day long that free flag tossed
Over the heads of the rebel host.

Ever its torn folds rose and fell
On the loyal winds that loved it well.

And through the hill-gaps sunset light
Shone over it with a warm good night.

Barbara Fritchie's work is o'er,
And the rebel rides on his raids no more.

Honor to her! and let a tear
Fall, for her sake, on Stonewall's bier.

Over Barbara Fritchie's grave,
Flag of Freedom and Union, wave!

Peace and order and beauty, draw
Round thy symbol of light and law.

And ever the stars above look down
On thy stars below at Frederick town.

THE HOME.

THE NEW.

BY MRS. HOYT.

Now what is new that bells should ring
And feasts be spread—
That all the folks their gifts should bring,
With welcomes said—
That fair young girls should wear their best,
And sturdy boys—
That at the hearth, so often scant,
There's room for children in their best,
For dame and sire and honored guest,
And room for noise,
And room for One who makes no vaunt?

Ah, He it is who strikes the strokes
For all the years,
And lifts from off these fair young folks
The what appears;
Who hides from dame and sire and guest
The sternly told,
That, truth to tell, there's nothing new
But time—time old itself, with all the rest,
With God, babe, gift, and love's divinest quest—
All old, old, old,
Save as the moment comes to me, and you.

Mrs. Hopeful on Slovenly Husbands.

"What a dissatisfied set of beings farmers' wives are", said a lady friend the other day. Whereupon I immediately took up the defensive.

"And have they not good reasons, many times, for being dissatisfied, since the majority of their husbands are as slovenly as they well can be, and make a great deal of unnecessary work, which a little forethought, on their part, might prevent?"

"Well," says she, "farmers cannot be expected to work without making some litter, nor to go dressed up while about their work."

"Admitting all that, yet they might, at least, get into a decent coat, when they go away; especially when their wives accompany them, said wives being expected to change their dresses and tidy up generally, and all within a very limited space of time, since their lords are always in a hurry. Querry—are women naturally more neat than men, or are they prouder?"

"I think," says she, "they are more fond of display."

Ah, but farmers' wives are not more so than other men's wives; but one thing is certain, they have more to vex them, that is if they happen to love cleanliness. For instance, when a man comes in from the barn yard with his feet covered with dirt, and, instead of cleaning them, stalks right in, just the same, and plants himself as composedly as if he had on a pair of nicely polished boots."

"What, with all that dirt on them?"

"Certainly, and on a nice brussels carpet, too; while his poor wife sits by fidgeting the while, for fear lest her company should observe it; caring more for the exposure of his slovenly traits than for the injury done the carpet."

"But farmer's wives should not have Brussels carpets."

"Why not, if they can afford them? Some of them like nice things, you know, and are not wholly unrefined, as many suppose."

And now Mr. Editor, if you will take your attention for a time from the improvement of cattle, and try to mend the ways of their owners a little, and also give us wives a few useful hints, you will confer a lasting benefit on all parties concerned.

MRS. HOPEFUL.

ROCK COUNTY, Wis., Dec. 1868.

NOTE.—Thank you, Mrs. Hopeful; we will remember your request. But, meantime, don't let your pen get lost. It seems to have been made for a good purpose. When the sign comes right, give the slovens another scratch. They richly deserve it.—EDITOR.

The Day we Celebrate.

BY MRS. HOYT.

I doubt if one new thing can be said about New Year's day. I doubt, too, if any one of the old things, however good, that will be said, all over the land, and written for the millions who read, will be as good as down in the silence of our own thoughts is the thing we think. The chief significance of the day would

be lost to you and to me, lost to the world, if either one of us could tell the other just what we think on such a day as that which lets go the past and takes up the future. Why is it that the dawn of the New Year has such an effect upon you? Do you think it has no particular effect? Perhaps you are making ready with those thousand little household cares and gifts, and surprizes that are to make the day a festival to others, thinking it is all for others you do this. And this may be. Very likely you do not much care for the extra plums in your pies, or for the gifts you make or may receive; and it may be that you would just as soon sit in your everyday attire in the regular family room, and that it is all for others that you dress you hair with unusual pains, put on your best dress and light a fire in the parlor. Very likely. But that is not what I mean by the effect the day has upon you. If you will look at yourself, even while attending to all these, you will find that you are not able to say why you think back with such a sharp distinctness to the day of some child-merymaking, to the first dawning of your girlhood's dream of love, to the bridal, the birth, the death nearest to all your life. You wonder if friend afar, or husband near, is thinking of you and of these. Why should they? These scenes were not laid in the hoar frost of a January day, but amid the flower bells of some glowing summer or the victorious rustle of autumn banners. Why do you think of them now? The winter of the world without answers not. The glowing hearth and blessed friends there gathered answer not. Your own soul with its strange, deep experience just like that of other New Years —only stranger and deeper with the years— answers not. It is precisely because you cannot tell this to husband or friend, because you do not yourself quite understand it, that it thus influences you.

I do not know anything about it; I do not think you do; but in the midst of the festivities of every New Year there is a deepening of that fearfully strange thing we call experience. As children from the dark, we tremble and run from the thought of death, while with open eyes we face the awful mystery of life, because it is only in the now and then of years that our eyes and the eyes of the invisable meet.

HEALTH AND DISEASE.

[A valuable article intended for this department was unfortunately crowded out in the "making up."—Ed.]

WIT AND WISDOM.

Louis XIV, being extremely harassed by the repeated solicitations of a veteran officer for promotion, said one day, loud enough to be heard, "That gentleman is the most troublesome officer I have in my service." "That is precisely the charge," said the old man, "which your majesty's enemies bring against me."

Accident does very little toward the production of any great result in life. Though sometimes what is called "a happy hit" may be made by a bold venture, the old and common highway of steady industry and application is the only safe road to travel.

Ladies, please be sweet, but don't be too formal. Be roses, but dont be *prim* roses.

A man may generally expect a domestic 'breeze' when his wife begins to put on 'airs'

Some late advertisers of patented pills,
By way of persuading the public to buy,
Bid all who are cursed with corporeal ills,
To "Take them and *live*, or refuse them, and *die*!"

God help us!—says Timon—and must we defend
Our persons and pockets with pistol or knife?
One can easily see what the rascals intend;
'Tis the highwayman's cry of "Your purse or your life!"

"Is that a lightning bug in the street?" asked a very short-sighted old lady. "No grandma," said a pert little miss, "it's a *big bug* with a cigar."

DOMESTIC ECONOMY.

A Talk in the Kitchen.—About Pastries.

BY MRS. HOYT.

Almost all families use pies, for almost all persons like them. When you are going to have company, and when you want to do a nice thing for your own folks, you give an extra touch to the pie. It is commonly supposed that a good pie is a very proper finish for a good dinner, as well as an amende for a

poor one, and so a good pie is. But when I say this, I do not mean one good in the common acceptation of short crust, high flavoring, and duly brought on at a red heat, but one that is really good in the sense of being fit to be eaten. The pie that furnishes your table handsomely, that a long perverted taste pronounces first rate, or a big piece of which will induce Johnny to do an errand or stop crying, is often far enough from a good article. Nor do I think I know all about pies, and that you housewives, who have made five hundred to my one, know nothing about the fitness of their preparation. Very far from it; but we do, neither of us, possess all knowledge upon this subject, and you who make them daily, may very properly send me your best recipes, and I give you such hints as may be worth considering; for this pie question is a good deal more than tucking together the fruit and butter and flour and spices that will, when baked, cut into as many pieces as the hands that reach to you at the dinner table. It is a question of long or short life, of good or bad looks, of temper or amiability, in short, it is the other side of the doctrine of total depravity.

To take flour and butter, or lard, often mixed up with sour milk, or cream, and saleratus, and having baked these into the sweet, clean juices of God's apples and cherries, give it to your child to eat with the injunction to be good and happy, and study well, is very much like teaching the theology of the Decrees, and then sending the young student out into world, enjoining an assimilation to the character of the great and good Being who wills all his creatures to be like unto himself. The idea that any simpleton can get dinner, but that it takes a good deal of a woman to write a poem, or paint a picture, is one of the errors that must be rooted out before any of us will be induced to give that attention and study to the subject of cooking that its importance justly merits.

I wish I knew more of this, that I might be able to help you beyond the little I try to; and of what little is given, I wish you would prove its advantage by actual practice.

Upon this subject I copy the following from the best Cook Book now before the country, that of Mrs. Horace Mann, a lady of suitable age, culture and opportunities to know the best of what is really known of the art of cooking, and who, to my personal knowledge, gives no recipes that have not been tested in her own kitchen.

PASTRY.

This is the article of food that is most deleterious to health. It is usually made with butter or lard,—lard making the handsomest pastry, butter the best tasted. But it is hoped that society is ready for some reform upon this point. Very good pie-crust can be made with potato and cream, without either butter, saleratus or soda.

Potato Pie-Crust.—Put a teacupful of rich, sweet cream to six good sized potatoes after they have been well boiled, (see Boiled Potatoes) and mashed fine. Add sa't to the taste, and flour enough to roll out the crust. Handle it as little as possible. It is better not to put crust at the bottom of a pie if the fruit is very moist, for it will be clammy from the moisture, but let the under crust only cover the rim of the plate. Prick the upper crust to let out the steam, else the juice will run over. This paste is excellent for apple dumplings, or meat pies, and may be eaten with impunity.

Next month more on this same subject.

YOUTH'S CORNER.

A Strange People, and How they Live.—The Esquimaux.

BY MRS. HOYT.

Of all the new and strange things we hear, there is nothing in which we are so much interested as in new and strange people. I suppose this is because we believe God when he says that, he "made of one blood all the nations of the earth," in which case they are, all of them, some relation to us, and of course we are interested in our kin folks. Here are three of them you have not seen—a pa and ma and baby of the Esquimaux race, a people

about whom we yet know but little. I will tell you a very little of what little we do know.

The Esquimaux inhabit a large portion of country lying to the extreme north of the North American continent, and a few of the same stock are also found on the barren shores of northeastern Asia. If you look at your maps, you will find that these countries are separated by the straits of Bhering. I do not know that any body knows where those people came from, or how they made out, without ships, to get from either side to the other. They do not often leave their country and come to ours, and not many of our people go up there into the fierce cold of those arctic regions. The few who have, and have stayed long enough to become acquainted with the country and people, tell us what we could not else know, for they do not, as we do, make books and papers to send out to all the world, that all the world may know what sort of folks they are and what they are doing.

You will often hear of Greenlanders and of Labradorians, &c., these being named from the particular part of the country they occupy, but the people of all this great North land are known under the general name of Esquimaux, [es-ke-mo] which is said to signify "eater of fish." In the language from which we get this, it also means, "those who mew." If I ever see any of them, and hear them speak, I will not forget to write and tell you if their talking is really like that of pussy cat.

These Esquimaux have no cities or churches with steeples, and no schools full of boys and girls running home to warm fires and suppers, and pleasant evenings of lighted lamps and story books, apples and cider and trundle-beds. They live in little huts along that bleak shore where the ocean and the land, the people, the dogs and the fish are pretty much frozen up, and these are nearly all there is there to freeze.

Their huts are sometimes built of stone, but as there is not an abundance of this, more frequently of the bones of whales laid together with turf and, when they can do no better, of snow and ice packed in large masses together. Even these are said to be quite comfortable. When built of such material as stone or bone, these huts are usually sunk a few feet into the earth, both for the warmth thus secured and defence against the winds. When entirely above ground they are not more than six or eight feet high, and without chimney or door. A hole just large enough to creep in and out, and sometimes a window covered with seal skin, which admits a little light, are all the openings they allow, the principal object being to keep warm. As I said, these huts are built along the sea shore, for it is by fishing that they subsist; the whale and seal that abound in those polar seas being their main dependence. In the winter they cut holes in the ice, and, wrapped in their clothing of skins, watch beside these places for the seals that pass along in the water below, and when one shows his head he is speared and carried home with great rejoicing. When they are so lucky as to capture a whale, whole communities will camp around the place where it is deposited and there live until hunger again drives them to the sea for fresh supplies. In all cold countries the people are obliged to live more upon fatty food than in warm climates, because that helps to keep up the animal heat without which they could not live, and in the regions where these picture friends are native, they eat nothing but the fat flesh of fish and drink the oil as we drink milk. Dr. Kane, who visited that country, and who has written an interesting book, telling us many things about the people, relates how a half pound of tallow candles was given to an Esquimaux young lady, whereupon she ate them down, wick and all, just as you would so much candy.

When they wish to take a journey, or bring anything too heavy for the hands, they make a sled and attach to it dogs, these being their sole dependence as beasts of burden; and a faithful servant is this Esquimaux dog. He

AN ESQUIMAUX FAMILY IN THEIR NATIVE HOME

never loses his way, but will go hundreds of miles through drifting snow and pitiless storms straight to his home, while his master has nothing to do but sit wrapped up in his robes of skins. I think you would laugh if I should tell you how these poor people contrive, without tools or iron, or even good wood, to make sled runners. They take four or five large, long fish, which they can easily catch, and having piled them up one upon the other, they then wrap them around with seal skin and contrive in some way to fasten this together, so that the fish are enclosed in a seal skin bag. They then place great weights upon this mass and so squeeze it down to a flat, board-like surface, which is easily done, the fish inside being soft and the seal skin outside elastic. They then lay an edge of turf all round and pour on water, a little at a time, which instantly freezes. After this has been repeated to a sufficient thickness, they have a runner smoother than was ever polished steel, and two of these, fastened together with bones of deer legs, will last as long as the winter that never melts them. In the spring, the flesh of these fish that has been all winter frozen as solid as ice and is, of course, sweet as if just caught, serves them for food, and the bones, turf and skin are all ready for the building and repairing of both hut and clothing. Thus the good God who created this part of his children for that dreary land of storm and bitter cold, has provided them with skill to make out, through the few materials at hand, to keep themselves clothed, fed and housed.

These people are very hospitable and kind to each other, as well as to strangers. They are always ready to share with whoever needs all that their scanty homes afford, and are never known, when leaving for ever so long a time, to put aside or secrete anything valuable. On the contrary, whatever would add to the comfort of any one who chances to come along, is left where it will be most easily found.

As you approach Labrador, where, being nearer civilization, the people begin to live a little more as we do and have rude doors to their huts, the latch will be found ready to be lifted, and directions written with a bit of charcoal or clay as to where things needful to the comfort of neighbor or traveller are to be found. But, after all this good trait of character, and many others they are said to possess, we would not like to live with these kin folks of ours. They are not neat and clean, and are so far from washing and brushing and dressing in clean clothes every morning, that most of them never wash at all. The consequence is they have dingy sort of faces, which, with the fat they eat and rub themselves with, and the severe cold to which they are exposed, are almost blue, the entire surface of the body being grey, though they are said to be born quite white.

The picture represents a family brought to this country by Mr. Hall, an arctic explorer, and they are now on exhibition in New York City, dressed just as they do in their native land. The skin cap, which in cold weather, and out doors, is used to cover the head, being always attached to the garment worn on the body, you will see serves as a cradle for the baby. It would be interesting to know what they think of New York, and of our manner of living as compared with their own. In every land there is a feeling of attachment to the scenes and circumstances, and people to which the individual is native, and should not wonder if this little Esquimaux family often turned from the grand houses and well-stored tables of that great city to the snow huts and seal-flesh suppers of the Arctic sea, with visions in their souls that nothing else can satisfy.

Amusement for Children.

In introducing a corner filled with puzzles, enigmas, connundrums, &c., into the Youth's department, we known that it is running squarely against the prejudices of many who think there is no profit in such things. But our experience with children proves what our philosophy else taught—that the chief advantage of thought is not the thing thought of,

but the mental exercise itself. Whatever arouses to application and sharpens the intellect is well considered, and to do this with the little folks, give them amusement with thought. We hope that parents, so far from discouraging, will help the children to get used to making out these things for themselves, and encourage them in sending in their own solutions.

Enigmas.

MRS. HOYT:—I send the following, answer to enigma in Dec. No. WIS. FARMER, page 470:

Old Abe. Please credit. J. C. ORR.

ALMOND, Wis., Dec. 10th, 1863.

Correct. Thank you. Below you will find others.—[MRS. H.

Should any one tell you I was around,
No doubt you'd be glad without much ground;
Should any one say I was not to be found,
No doubt you'd be glad for the very same ground—
For whether around, or not to be found,
I make it a point to be sure of my ground.

In this there is no play upon words, *ground* being used in but one sense, and that the common one.

GEOGRAPHICAL ENIGMA.

I am composed of 7 letters.
My 1 is one of the largest cities of the Union.
My 2 is a Northern State.
My 3 is a Southern State.
My 4 is a city of this State.
My 5 is one of our big rivers.
My 6 is one of our great mountain ranges.
My 7 is an important Atlantic bay.
My whole is the locality most talked of since the war.

Connundrum.—Why are the stars the best astronomers?

Puzzle.—On a copper cent, find a fruit, a flower and an animal.

To all the dear children of the great FARMER family we send a warm holiday greeting—a Merry Christmas and very Happy New Year!

EDITORIAL MISCELLANY.

Readers of the Farmer!

Look this No. through and then consider whether you cannot afford to make an extra effort to induce all your neighbors to take it. Having just increased our working force by placing another competent and thorough man in the subscription department, it is not without good reason that we give new assurances for the future. We are determined to make volume XVI the best ever sent out, and to make for the *Wisconsin Farmer* an unquestionable title to rank as the most valuable agricultural journal in America. ☞ *See important notices pertaining to subscription, on page* 42.

Every Reader of the Farmer

Who has possession of any information worth giving to the world is *earnestly solicited to send it to us for publication.*

☞ We (the Editor,) are not the Author

Of *everything* that appears in our columns. *All articles which neither have a signature nor are distinctly credited to somebody else or to some other paper are editorial.* For those we are personally responsible, but for *none others.*

Several Valuable Contributions

Intended for this No. arrived too late to go into the departments to which they are appropriate, and must accordingly wait for a place in the Feb. No. A little earlier, friends. Communications, in order to insure publication, should be in our hands *twenty to thirty days*—according to the position of the department—*before the first of the month for which they are written.*

Come to the Sorghum Convention!

And come prepared to contribute all the interest you can to the occasion, whether by mills and apparatus put on exhibition, by samples of seed, syrup and sugar, or by well digeste., reliable information based upon experience. The meeting will be held in the new Capitol on the 3d and 4th of February prox., and the invitation is to everybody who feels an interest in the advancement of the Sorghum interest in the northwest states.

We hope our Illino s and Iowa friends, who added so much to the interest of the last meeting, will again be present.

Any who cannot attend are earnest y requested to favor the convention with the results of their experience by letter. The questions of soil, fertilizers, preparation, seed, planting, cultivation, harvesting, manufacture and refining will be discussed in all their ramifications.

ADDITIONAL REASONS WHY YOU SHOULD COME.

The Executive Committee of the State Agricultural Society are to meet at the same time to determine the question of holding a State Fair the coming fall and to revise the Premium List issued in 1861. We have no authority from the Board to make such an announcement, bu feel no hesitation in saying, they would unquestionably be very glad to meet with every friend of Agriculture in the State who can possibly attend.

A State Fair Once More.

At the late Annual Meeting of the State Agricultural Society, held Dec. 9, the question of a Fair for 1864 was discussed with very favorable results. The Executive Committee will meet on the 2d of February, when the question will again be taken up and fully decided.

It is our conviction that, with the use of proper means, a Fair may be held next fall that will excel anything in the past. For three successive years we have been pretty much asleep as an agricultural community in Wisconsin, so far as it relates to public enterprises, and *we* think it's high time all the friends of agriculture again went to work.

The Executive Committee will undoubtedly, as heretofore, be disposed to undertake a Fair, if the people will show some sign of a disposition to heartily endorse their decision.

Friends, if you have any suggestions to make, whether on the general subject of holding a Fair, or of a special character, as bearing upon the Premium List and the Management of the Fair, now is your time, before the meeting of the Committee. Afterwards it will be too late to do any good.

The Presidents of the County Ag. Societies will remember that they are Life Members, *ex officio*, of the State Society, and it is hoped that they will take special interest in all its affairs.

We make the motion for a grand Fair; how many thousand farmers will second it? You may all speak at once, if you will.

"Why didn't you go to the War?"

Simply because we found it impossible to so shape the important industrial interests of which we happen to have charge as to warrant the going. Our friends, some of them, know that we made repeated efforts to do so, and that we have our pen in hand this moment instead of a musket solely because we could find no one to relieve us of those industrial obligations in the discharge of which we were induced to believe we could render more valuable service to the country than as a soldier in the field. Therefore it was that we declined the commission so kindly tendered us by his Excellency, paid the required $300, and are to-day, in the sacrifice of personal preference and ambition, working quietly on in the unappreciated avocation of an agricultural editor.

Descended from ancestors, both paternal and maternal, who freely gave themselves to their country in the wars of the Revolution and of 1812, we, too, may justly claim to have some drops of patriotic blood in our veins; and, if we may be pardoned for saying thus much in defense of our position, we have no hesitation in declaring it as our own profound conviction that no man who has gone into the military service since the breaking out of this war has more completely immolated himself, in so doing, than have we in denying ourself a part in the grand conflict.

The question of our correspondent, almost as above quoted, was personally put by Mr. Seward in the autumn of 1861. Our reply to him may serve as our reply to all: "Sir, I hold that man to be the best patriot who is most willing to serve his country where he can do her the most good. When I become satisfied that I can render her better service

with the bayonet than with the pen, I shall be most glad to make the exchange."

Northern Farmers in the Cotton Fields.

There are *said* to be great chances for getting rich down South, by renting forsaken cotton plantations of the Government and running them on private account. Several Milwaukee gentlemen are reported as having gone down to make the experiment.

The St. Louis *Democrat* contains the letter of a "prominent army officer," bearing date Goodrich's Landing, Oct. 9th, and addressed to Hon Henry T. Blow, of St. Louis, from which we extract the following:

"There is *an immense gold field* down here, and nobody appears to know it. I want it thrown open to the people so the people can work in it. I refer to the many abandoned plantations from Helena, Arkansas to Natchez, Louisiana. The owners, most of them, have fled with their negroes to Texas and elsewhere, leaving land that should be occupied.

"During this year some of the plantations have been worked by northern men, by hiring negro labor. But few leases were given, as it was late in the season when the idea of cultivation was thought of

"What leases were given expire in February next, and then I want to see a large laboring population from the north come down here and fill up the country. I lived at Fort Kearney during two gold excitements. One was California, the other Pike's Peak. I saw the great numbers of people that moved there to dig for gold. The gold got there was nothing to what can be made by coming to this country. Let the prospect be advertised in the newspapers of the west, that every man coming down here can have 80 or 200 acres of cotton land, according to his means for working it, to work for one year. Two hundred acres of land means 200 bales of cotton, the net price of which in New York will be $40,000. If 80 acres, it will be $16,000. With hired labor cotton can be raised at 5 cents per pound, which gives a profit of 45 cents per pound, net. No farmer in the north ever dreamed of such profit; and if the advantages of coming here were known they would flock down here by thousands.

* * * * * *

"The question of title to the land must not make timid a man who is thinking to come here. *The cultivation of one year is enough to induce him to come.* A man that takes only 80 acres can go back home at the end of the year with at least $8,000 in his pocket. Would he make one-tenth that by staying at home?"

Some truth, and some fever. The farmers of Wisconsin, as a general rule, are doing very well where they are, and it is usually best to let well enough alone.

"Some of the Ladies in Hartford

Appear in the streets without hoops, but with dresses that come down only to the ankle, disclosing balmoral boots and striped stockings. One of the Hartford papers thinks this a "pleasant reform."—*Exchange.*

We have nothing in particular to say against the hoops, but long, mud-mopping dresses have always appeared to us shamefully out of place in the street.

A Scoundrel Spotted.

We clip the following from the columns of the *State Journal:*

CAUTION.—I take this opportunity of warning the public, and particularly tree and grape vine buyers, against a certain pedler calling himself Elliot. He is a large, thick-set fellow, tongue very smooth and deceptive, drives a span of horses, and has the words "Grape Vines," with the Stars and Stripes, painted on his wagon. Such a man came to my Nursery this fall, and obtained Vines, Shrubbery, &c., in a manner that I deem but little better than stealing. I warn the public against purchasing of this fellow, as he is a cheat and a swindler.

L. P. CHANDLER.

We have heard of this same fellow's tricks in other parts of the State, and republish Mr. Chandler's "caution" for the benefit of our readers. Gathering up worthless vines, labelling with the name of some extraordinary variety and selling them at one to three dollars a piece, is, in our opinion, *worse* than "stealing," and should subject the swindler to a—severe letting alone, if, not, indeed, to summary punishment. If we had him in hand, we would forthwith turn him over to the tender mercies of our "Peleg," with the proviso that after being "stoned," he should be compelled to eat sour grapes to all eternity.

Our advice to farmers who want to buy nursery stock, is, that they send their orders direct to long-tried and well established cultivators.

Encouraging Words.

It is gratifying to know that the FARMER is rapidly gaining in favor with the people. Very few seem disposed, for any cause, to discontinue, and almost every renewal is accompanied by cheering words of commendation. The following is a sample:

EDITOR WISCONSIN FARMER:—Please find enclosed $1, and continue the FARMER to me for the year 1864.

You are certainly doing a good work, and I regret that my circumstances will not permit me to serve you as agent here. You ought to have, and I believe might have, fifty subscribers at this Post Office.

I like the FARMER for its valuable practical instruction, but even more for its independent, common-sense way of dealing with ques-

tions of a high political, social and moral character. It was a valuable journal, and creditable to our State, seven or eight years ago. but is now greatly improved, and manifestly on the pathway to a brighter destiny.

SPENCER CARR.

ONALASKA, Dec. 12, 1863.

Jottings from Our Note-Book of Travel.

LONDON, July 5.

How much do one's moods, themselves often dependent on circumstances trifling and transient, determine his opinion of places, men and things.

There have been times during my almost two months' stay in this city when I must have described it as a world of bricks, in huge piles, left out in the rain—a bank of miserable, impenetrable fog—a monstrous mud-hole, ten miles by ten, set off by chaotic heaps of much abused building material, and animated by greasy, solemn looking creatures, by courtesy called men—or, as a hundred square miles of commingled squalor and magnificence, the former immensely preponderating.

At other times, when the sun has deigned to smile for a few consecutive hours, drying off the bedrizzled world, making the palaces, cathedrals and magnificent business blocks resplendent with all that can contribute to the comfort and happiness of an enlightened people, and tempting out into the fashionable avenues a brilliant throng of those who represent the beauty, wealth and power, of the foremost kingdom of the earth; and when, under the inspiration of such a day and of such scenes, I have further thought of its thousands of teeming factories, its crowded docks and wharves, its forests of ships of every name and nation, its many noble bridges and world-famed tunnel, its almost omnipotent banks and stock exchanges, its vast metropolitan produce markets, and of its numberless schools, churches, hospitals and other institutions that minister to the bodily and spiritual needs of over three and a half millions of people,—at such times I would have said, in my enthusiasm, how magnificent and glorious a city!

The truth lies between these extremes. London is too vast to be seen at a glance, and flippantly reported. To picture it truthfully, one should be broad and comprehensive in his views, deliberate and impartial in his judgment, and have spent in its midst at least one full, industrious year.

My visit has embraced the most favorable season, and I cannot, of course, fully appreciate the gloominess of some of the late autumn and winter months, when the thickness of the fog compels the constant burning of gas everywhere, in streets, shops and dwellings, and the carrying of lanterns then, even at the hour of noon; all *that* I must take on trust—an exercise of faith by no means difficult after the experience I have already had. But then, coming from the pure air and clear skies of America, there is no doubt but that I shall do the gloomy side of London the fullest justice. Shall I also be able truthfully to reflect the sunny side? that is the question that most should concern me, perhaps.

Of London itself, as a city, topographically, architecturally, mechanically and commercially considered, it is utterly out of my power to give an adequate idea in the brief, hasty notes I now write.

In statistical style, I could easily say that London is situated on both sides of the river Thames, at a point 60 miles from where it empties into the sea—that the metropolitan district includes an area of 122 square miles—that the surface on which the city is built is undulating on the north side of the river, and girded round by an interrupted chain of hills, while on the south side it is more level—that 'West End' is more especially occupied by beautiful parks, gardens, terraces and the magnificent residences of wealthy business men and of the nobility, including also the royal palaces, old and new, while 'East End' is industral and commercial; embracing the Stock Exchange, the palatial banking houses, the Coal Exchange, the great Colonial Produce Market, the fish and other food mar-

kets, the docks and the shipping, the vast manufacturing districts where scarcely less than half a million half paid men and women toil their ten to fifteen hours a day, and, last of all, the hundreds of prisons, hospitals, charitable institutions and schools, for the punishment, correction cure and education of its millions of struggling p.ople—that the principal parks, are seven in number, with an aggregate area of some 4,000 acres, besides hundreds of open squares, cresents, ovals and beautiful gardens dotted in here and there, and everywhere, except in the crowded City proper—that London contains 1,100 churches of all denominations, some of them built nearly a thousand years ago, and one of them (St. Paul's) second only to St. Peter's at Rome, in all the world, for the grandeur of its proportions and for the beauty, symmetry and sublimity of its architecture—that its schools, public and private, number 4,600, with accommodations for 260,000 children, its Sunday schools 700, with an attendance of 189,000—that its charitable institutions accommodate and relieve some 200,000 persons annually—that its police force of 6,000 men annually deals with not less than 100,000 offenders—that the periodicals published number 500, the libraries also hundreds, with millions on millions of volumes—that the trade of the city is illustrated by the fact that 50,000 vessels are engaged in its commerce; the exports and imports exceeding $325,000,000 in value—and finally that the growth of London is so rapid that it threatens to cover all England! the increase in population for the last decade having been 47.24 per cent.—all this I might say, and more, but then how imperfect an idea would it give of the all there is of this mighty city of London!

It were utterly useless to attempt a complete picture at one sitting; and the best that I can do is to promise a series of special sketches at some time in the future.

Who has a Good Buggy Horse

To exchange for one of Prince & Co.'s $170 melodeons, *new?* Address answer to "Care of Publishers FARMER."

Mr. E. Reynolds,

Of Metcmen, Fond du Lac county, will please accept the thanks of Mrs. Hoyt for a quantity of apples grown by himself. They are of excellent quality, and afford good evidence of what may done in the northern counties of a "hyperborean State."

The R. R. Companies of this State

Have a scheme for consolidation, which should receive the attention of every man interested in the welfare of the State. If a company of perfect men could be found, such an arrangement would be more economical than the present. But, unfortunately, the people of Wisconsin have had some experience which must incline them to distrust the perfection of railroad men if of nobody else, and it is presumable that they will not willingly put themselves in the power of so stupendous a monopoly as the one proposed.

The Popular Columbus (O.) Nurseries,

We learn by an attractive Wholesale Catalogue for the Spring of 1864, just received, are now owned exclusively by Messrs. A. G. Hanford and Brother, Mr. Bateham having retired on account of declining health.

Mr. Hanford writes us that their sales the past autumn were larger than ever before, and that the pr.spect for a large spring trade was never so good as now.

Glad of it. No nurserymen in the world are more deserving.

The Scientific American,

Designed especially for mechanics, inventors, manufacturers, engineers, agriculturists and chemists, is the best paper of its kind in America, and is worthy of an immense patronage.

Terms—$3 for one year; $1.50 for six months; $1 for four months; 20 copies, $40 Specimen copies sent free; also, gratis, a pamphlet of "Advice to Inventors." Address Munn & Co., publishers, 37 Park Row, New York City.

The Rural Annual for 1864.

The *Rural Annual and Horticultural Directo-*

ry is a little pamphlet of 100 pages, published at the commencement of each year by the Editor of the *Genesee Farmer*, at Rochester, N. Y. It was started in 1856, and a new volume has been issued each year. The volume for 1864 is now before us. Among its contents are many articles of interest and value.

Price 25 cents. It will be sent prepaid by return mail on receipt of the price. Address JOSEPH HARRIS, Editor *Genesee Farmer*, Rochester, N. Y.

Hunt's Merchant's Magazine.

The late Freeman Hunt commenced this periodical nearly twenty-five years ago, (it is now far into its forty-ninth volume,) and the necessity for such a publication, as well as the tact and ability with which it was conducted, made it a popular and paying property within three months. Out of the United States no magazine is so well known, so highly esteemed so completely relied upon by men of business. It is to be found on the table in almost every Chamber of Commerce in England and the continent, as well as in Australia and India. Famous for the accuracy of its information, it has obtained high repute as a reliable work. Mr. Hunt, its founder, died in 1856, and his magazine is now conducted, in the good old style, by a very able successor, Mr. William B. Dana.—*Forney's Press.*

We endorse the above most cordially. The Merchant's is the ablest magazine of its kind in the world.

Barnum's "Self Sewer."

We are indebted to Dr. Barnum, of Chicago, for one of these little attachments. Have put it into the hands of a compe.ent person for trial, and will report the verdict impartially.

QUERIES AND ANSWERS.

Cider Mills!

Who has them for sale? We are having applications for them even in mid winter.

Best Family Loom.

I. J. Jones, of Waupaca, asks for information on this subject. We have taken steps to obtain it and will publish as soon as practicable.

Stifle Joint.

N. M., of Lodi, says: "Can you tell us what is good for a stifle joint? We have a young colt that is badly stifled. Have tried everything we could hear of—white oak bark, alum, the white of eggs and the stifle block. It has been off for probably three months. Th stifle seems to swing loose. It does not seem to cripple her; she runs, kicks up her heels and don't limp, only with now and then a halt." [A rather novel case, it seems to us. Perhaps some of our readers have had such experience as will enable them to answer the enquiry.]

What Breed of Hogs?

I own a grist mill, and should like to keep a good breed of hogs there. What breed would you recommend, and where can I get a sow or a few pigs? J. R. LEHMANN.

NEOSHO, Dodge Co., Wis.

[The Suffolk, or a cross of the Suffolk with the Berkshire, would perhaps answer your purpose as well as any of the breeds of swine. Don't know just now who has them to sell. Probably some of your own county farmers who happen to see this, will be able to accommodate you.]

PUBLISHERS' CORNER.

Old Subscribers,

As well as new, are entitled to a choice of the prizes offered in Prospectus.

The Paper Makers

Threaten to raise the price of paper yet higher! If they should, every cent of profit derived from the publication of the FARMER will accrue to the subscriber; and then we may look for a mighty influx of names. Even now we think they have decidedly the best of it.

Clubbing.—Subscribers

Who wise to take other periodicals in connection with the FARMER, are referred to our *corrected* club list in Prospectus.

The *Atlantic Monthly* has added another 25 cts. to its clubbing price, so that we are now unable to furnish both it and the FARMER for less than $3.50.

We are Paying out

Hundreds of dollars for Prizes for spring distribution. Pour in the names, so that

none of the purchased stock may be left on our hands.

Our Agents and other Friends

Should not omit to notice that our offer of prizes has been extended to Feb. 1st. It seems to be doing so well that we are unwilling to shut down the gate.

Wanted, 'the Worst Kind!'

Every dollar that is due us. We are paying, cash down, two prices for material, and positively cannot afford to give credit on the FARMER. We presume our delinquent friends could just as well pay us up as to defer it a few months, and we are perfectly sure they would have a great deal more pleasure in reading their own than a borrowed paper. At all events, we trust they will make the experiment, and that, in sending in their money for the past, they will not forget the year just begun.

Look at our generous offer of prizes on 4th page of cover, and tell us early in the month which one you will have.

These Strawberries.

We learn that here and there a subscriber to whom the strawberry prize was sent last fall, failed to get them until they were so dried that they could not be made to live. In most cases it was either the fault of Uncle Sam or of the subscriber in neglecting to call for mail matter until several days after the arrival of the plants. We have taken great pains in making arrangements for the coming season, which will insure the better preservation of all plants, &c., sent out in this way, and hope there will be no more failure.

Afraid and not Afraid--A Difference

It is curious how some men can never get enough for their money. Our readers must all know that, with the prices of printing material so outrageously high, there can scarcely anything be saved in publishing the FARMER at $1.00 They must likewise know that, on this account, nearly every paper in the country has increased its price of subscription; while we, on the contrary, have stood firm and resolute against the pressure of the times; not only not increasing our rates, but even adding to the FARMER prizes, which, of themselves are worth nearly or quite what we ask for the paper. And yet the number is not few, of such as, with their subscriptions, put in their claims for the *entire list of prizes*! whereas we only offer *a choice*—that is, *one* of the five. Here is a sample letter, which we publish just as it came, simply omitting the name:

FRIEND HOYT,

Sir:—I have seen a few of the *Farmers*, and like them. Please send me a copy. Please send the grapes and any of the raspberries you think will stand the winter best, and the blackberry. ***

Now, any one, not totally blind, can see, by referring to our Prospectus, that if we were to comply with this subscriber's demands he would get $1,75 worth of nursery stock for $1,00, and the FARMER *thrown in!*

But, on the other hand, there are many true and appreciative friends of the FARMER, who seem afraid they will get more than they pay for, and who insist on paying their regular dollar, feeling insulted, almost, by the offer of a prize.

FOND DU LAC, Nov. 23, 1863.

Here is a letter from one of this class:

MESSRS. HOYT & CAMPBELL:

Enclosed please find $1 for the FARMER for the year 1864. I tell you the simple truth when I say, I consider this the best investment that I shall be likely to make during the year. If the price were $5 I should have the magazine just the same, for the whole family have agreed that we can't keep house without it. I am sure you cannot afford it for less than your regular price, and you may send the prize you so generously offer to some one who has not yet learned the value of the FARMER itself. ***

BARABOO, Wis., Dec., 1863.

Verily, all men are not born alike.

The Best Agricultural Journal

In the country, and A PRIZE TO EVERY SUBSCRIBER! Don't forget that.

NEWS SUMMARY.

STATE AFFAIRS.

Industrial.

The official returns from the County Agricultural Societies, thus far made, are proof of our ability to hold paying exhibitiens even in times of war. Next season there will probably be a grand rally on the part of all who have the interests of Agriculture at heart, and the result can hardly be doubtful.

A Sorghum Convention will be held at Madison on the 3d and 4th of February. Everybody is invited.

A move is making for a State Fair next fall. See Editorial Miscellany.

The Markets still encouraging to Farmers.

MILWAUKEE, Dec. 23.—Flour firm, with an upward tendency. Wheat declined 1½c. Sales of No. 1 spring in store at 1.16@1.17¾. Oats in store at 60c. Corn delivered at 80@85c. Barley, good to choice, 1.15@1.20: inferior 90c@1.00. Rye in store 96c. Dressed Hogs—Market unchanged. Sales dividing on 200 at 6.25@7.00; on 150@200 at 6.00@6.50. Gold steady at 1.50

NEW YORK, Dec. 23.—Wheat, heavy and 1c lower, at 1.44@1.49 for Chicago Spring, 1.46@1.50 for Milwaukee Club, and 1.54@1.59 for Winter Red Western. Pork firmer. Lard firmer, at 12@13.

NATIONAL AFFAIRS.

Industrial.

The ceremony of formally breaking ground on the west side of the Missouri river, for the Union Pacific Railroad, occurred at Omaha Nebraska, December 2d.

Political and Partizan.

December 4th, the "Conservative Union" National Committee held a meeting at Cincinnati with reference to the next term of the Presidency. Hon. A. M. Kendall, President. Convention addressed by Garret Davis, of Ky., Gen. Leslie Combs, J. Scott Harrison, ef Ohio, Gov. Campbell, of Tennessee, R F. Stevens, of New York, and others.

The following resolution was adopted:

Resolved, That this Convention of Consultation adopts and reaffirms the Kentucky platform of 1863, and suggests to the Conservative Union National Committee the name of George B. McClellan for the next Presidency, and recommend to the said Committee to take such action in regard to the nomination of candidates for President and Vice President as they may decem expedient.

The committee adjourned to meet at Philadelphia, Dec. 23d, for the nomination of candidates for the Presidency and Vice Presidency.

Congress

Convened Dec. 7th; the House being promptly organized by the election, on first ballot, of Schuyler Colfax. of Indiana, (radical Republican) Speaker.

The President's Message

Was read the following day. It is a document of moderate length and ably presents the condition of our national affairs. The following are some of the more important points:

We remain in peace and friendship with foreign powers.

The mineral resources of Colerado, Nevada, Idaho, New Mexico and Arizona are proving far richer than was anticipated.

The expediency of establishing a system for the encouragement of immigration is submitted, with the suggestions that cheap assistance may be economically afforded such destitute persons in other countries as desire to meet our growing demand for labor.

The operations of the Treasury during the last year have been successfully conducted. The national banking law has proved a valuable support to the public credit.

The receipts during the year from all sources, including loans and the balance in the treasury at its commencement were $901,125,674.86; the aggregate disbursements, $895,786,680.65; leaving a balance on the 7th of July, 1863, of $5,829,054.21.

The duties of the naval branch of the service have been discharged with fidelity and success. More than one thousand vessels have been captured since the blockade was instituted, and the value of prizes sent in for adjudication amounts to over $13,000,000. The naval force of the U. S. consists of 588 vessels, 75 being iron-clad armored steamers.

A modification of the Homestead Act, so as to favor those engaged in the military and naval service of the U. S., is recommended.

The attention of Congress is called to the proposition for enlarging the water communication between the Mississippi and the northeastern sea-board. "Augmented inter-

est is given to this subject by the actual commencement of work on the Pacific R. R. under auspices so favorable to its rapid progress and completion that the enlarged facilities of navigation become a palpable need to the road."

The Emancipation Proclamation, while it has not given rise to a single servile insurrection, has weakened the enemy and strengthened our cause among the nations abroad.

On the subject of adherence to the spirit and letter of his proclamation, the President says:

"To give up this principle would not only be to relinquish a lever of power, but would be a cruel and astounding breach of faith. I may add, at this point, that while I remain in my present position I shall not attempt to retract or modify the emancipation proclamation, nor shall I return to slavery any person who is free by the terms of the proclamation or by any act of Congress."

With a view to the earliest practicable restoration of the Union and to a sure and permanent settlement of the difficulties which have so long disturbed the harmony that should exist between the two great sections of our common country, the President, while he declares his unfaltering purpose to push the war with all possible vigor, at the same time offers to the rebellious states, by proclamation, easy conditions on which they may return to their allegiance.

All rebels in the "confederate" army below the rank of colonel, and all in the navy below the rank of lieutenant, who will take, subscribe and keep the following oath, are offered pardon:

"I do solemnly swear, in the presence of Almighty God, that I will henceforth faithfully support, protect and defend the Constitution of the United States, and the Union of the States thereunder; and that I will in like manner, abide by and faithfully support all the acts of Congress passed during the existing rebellion with reference to slaves, so long and so far as not repealed, modified, or held void by Congress, or by the decision of the Supreme Court; and that I will in like manner abide by and faithfully support all Proclamations of the President, made during the existing rebellion, having reference to slaves, so long and so far as not modified or declared void by the decision of the Supreme Court, so help me God."

The Proclamation likewise prescribes the conditions of 'reconstruction':

"I do further proclaim, declare and make known, that whenever, in any of the States of Arkansas, Texas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, Florida, South Carolina, or North Carolina, a number of persons, not less than one-tenth of the number of the votes cast in such States at the Presidential election of the year of our Lord 1860,—each having taken the oath aforesaid and not having since violated it, and being a qualified voter, by the election laws of the State existing immediately before the so-called act of secession, and excluding all others—shall establish a State Government which shall be Republican in form and in no wise contravening said oath, such shall be recognized as the true Government of the State, and the State shall receive thereunder the benefits of the constitutional provision which declares that the United States shall guarantee to every State in this Union a Republican form of Government, and shall protect each of them against invasion, and on application of the Legislature, or the Executive when the Legislature cannot be convened, against domestic violence."

Military.

In the South and Southwest good work has been done. General Banks has been eminently successful, and now holds important positions on the coast and on the line between Texas and Mexico, thus cutting off that extensive trade which has so long been carried on by the Texas planters with foreign countries and guarding our southern border against any encroachments from the French army of occupation in Mexico.

Gen. Grant's great battle with Bragg resulted gloriously for the cause of the Union; and Gen. Burnside's success in driving Longstreet out of E. Tennessee was hardly less important.

Gen. Butler is putting the rebels through in his department, and hundreds of them are coming in at Norfolk and Fortress Monroe to take the oath.

Gen. Meade has fallen back upon the Rappahannock, and Lee is said to be establishing his army in winter quarters. Some fighting in Shenandoah Valley with advantage on our side.

Volunteering has been going on so briskly under the double stimulus of national and local bounties that there will probably be no draft on January 5th.

☞ See new advertisements below.

JOHN P. ROE,

IMPORTER AND BREEDER OF PURE-BRED DURham Cattle and South Down Sheep, offers for sale, on reasonable terms, a few fine calves, bulls, and heifers. Color chiefly red. Post Office address, Durham Hill, Waukesha Co., Wisconsin.

Muskego, Waukesha Co., Wis., Dec. 18, 1863. jan4t

Notice to Hog Raisers.

FARMERS, SEND FIVE CENTS TO REUBEN HURD, of Spring Hill, Whiteside Co., Illinois, and get a pamphlet containing sixteen pages, giving his twenty-seven years' experience in Wheat and Pork raising, his mode of raising, crossing and fattening Pork, together with his success in the use of the American Hog-Tamer, to prevent hogs from rooting. janlm

NINTH ANNUAL REPORT

OF THE

DODGE CO. MUTUAL INS. CO.

January 1st, 1863.

Amount of Capital Jan. 1st, 1863.....$84,325 80

CONSISTING OF

Premium Notes	$70,188 63	
Real Estate and Office Furniture	1,136 49	
Cash on deposit and in Co's Office	1,860 70	
Cash loaned on Call	5,238 00	
Bills Rec. (Notes drawing int.)	5,906 96	
		$84,325 80
Whole No. Policies issued since Jan 1. 1863		1,420
Whole No. Policies outstanding Jan. 1, 1863		6,710
Whole amount at risk thereon		5,143,235 00
Cash received for interest	$1,135 52	
Cash Premium	7,598 40	
		8,833 92
Paid unearned Premium		106 26
Paid expenses of Officers, Agents, Printing, Postage, Rents, Fuel, &c., &c.		4,614 53

Paid the following Losses since Jan. 1 1862:

Luke Looney, Watertown Jeff. co Jan 1	4 68
C F Rogers Rosendale. Fond du Lac co, Feb. 11	450 00
L Stroeble, Hebron, Jeff. co, April 9	442 30
Wm Brown, Lomira, Dodge co, June 3	487 50
Christian Kebl, Wilson, Sheboygan co, June 23	200 00
Wm Kiel, Cato, Manitowoc co, June 23	350 37
A Mathewson, Buena Vista, Portage co, July 14	19 00
R Wood, Sheboygan Falls, Sheb co, Aug 22	7 50
Wm Robertson, Somers, Kenosha co, "	75 00
Jeno Fore, Oconomowoc, Waukesha co, Sept 2	333 10
F E Bailey, Lima, Sheboygan co, Sept 3	20 25
Mary Hamilton, Farmington, Wash. co, Sept 10	487 50
J A Leavenworth, Bradford, Rock co, Sept 26	1,155 00
F Warnish, Cooperstown, Manitowoc co, Sept 30	25 00
D P Roberts, Greenbush, Sheboygan co, Sept 30	18 75
J Sullivan, Lima, Sheboygan co, Oct 3	182 80
J A Wilcox, Hebron, Jefferson co, Oct 17	460 15
G A Pillsbury, Trenton, Dodge co, Oct 18	85 88
M Chamberlain, Lebanon, Dodge co, Nov 8	10 42
Jos Nightingale, Byron, Fond du Lac co, Dec 1	258 37
L Brainard, Waupaca, Waupaca co, Dec 18	395 78
Minor Jones, Lind, Waupaca co, Dec 18	145 00
C S Whittier, Dayton, Green Lake co, Dec 31	1,157 00
Total	$6,720 32

There are no unsettled claims for losses against the Company; no cases for losses contested, and no debts owing by the Company. The directors take pleasure in laying the above report before the members, knowing that the economy with which the affairs of the Company have been managed, the promptness with which its losses have been paid, and our still adhering to our rule of insuring Farm Property only, must and will meet with their approbation. Our capital is steadily increasing, and the Company stands second to none, and the risks they assume are of the safest kind.

We ask your continued patronage and that of your friends.

EDWIN HILLYER, Sec. GEO. W. BLY, Pres.

Logan Graves, Wm. G. McElroy, Geo. Babcock, M. L. Coe, J. T. Hillyer, L. B. Hills, and Edward Barker, *Directors.*

A. F. WALTZINGER

Wholesale and Retail Dealer in

CANDIES, FRUITS, CONFECTIONERIES.

AND FANCY ARTICLES.

HAS on hand and is constantly manufacturing or receiving the finest Candies Confectionery of every kind. Also Fancy Articles, Toys, Masks, Ornaments, &c.

FANCY CAKES ON HAND AND MADE TO ORDER.

☞ *Sociable and Wedding Parties supplied.*

Seasonable Fruits received by Express from the South.

A. F. WALTZINGER,
No. 6 King St., Madison, Wis.

LAKE SIDE

Nursery and Seed Garden!

MADISON, - - WISCONSIN,

THIS new establishment is now open to Dealers, agents and the retail trade for the fall of 1863. It contains an unrivalled collection of choice Apples, one and two years old, including over 100,000 *Crown Grafted, grown distinct.* APPLE STOCKS, the present year's growth.

CURRANTS—in great variety—Red, white and Black, one and two years, in large quantities. Also a general assortment of Fruit and Ornamental

Trees, Shrubs, Vines, &c.

The especial attention of the Trade, those wishing to plant largely, and those living remote from Nurseries, is called to this Stock as superior for their wants.

A LARGE FALL TRADE IS EXPECTED.

The best of refe.ences given. Send for circular Price List and Catalogue. Packing done in the best manner. Address

J. C. PLUMB.
jy63tf Madison, Wis.

G. T. WINSLOW,

WHOLESALE AND RETAIL DEALER IN

Millinery Goods, Bonnets, Hats, Caps and Headdresses,

In PORTER'S BLOCK, North corner Capitol Park.

Madison, Wis., Sept. 29, 1863.

STATEMENT

OF THE

Madison Mutual Insurance Co.

FOR THE YEAR ENDING

DECEMBER 31, A. D. 1862.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 103, of the General Laws of 1858.

Total amount of accumulations..... $327,464 67

ASSETS.

Unimpaired premium notes of policy holders	$281,000 00	
Cash on hand and due from policy holders and agents for cash premiums	45,464 60	
Office furniture and fixtures	1,000 00	327,464 67
Whole No. policies issued		22,061
Am't of outstanding risks thereon		$15,902,080 00
Number of policies issued in 1862		7,706
Am't of outstanding risks thereon		$6,069,813 00
Am't premium notes thereon		108,323 93
Am't cash premiums thereon, less commissions to agents		45,727 80
Am't interest received		972 18
Total am't losses reported during 1862		$17,744 16
Total am't losses paid during 1862, 89 in number		21,413 97
Am't claimed for loss, resisted as fraudulent		2,000 00
Losses adjusted and due		none.
Losses adjusted and not due		none.
Losses unadjusted		292 35
All other claims against the company		97 50
Am't paid for advertising and postage		1,763 66
Am't paid for printing		640 50
Am't paid for policy stamps		609 00
Am't paid taxes to Com'r Internal Revenue		82 82
Expenses paid, including all compensation to Officers and Directors, stationery, extra clerk hire, fuel, lights, and other incidental expenses		7,299 98

Comparative Statement of the business of the Company for the years 1859, 1860, 1861 and 1862.

	1859.		1860.		1861.		1862.	
Total amount of accumulations		$30,080 95		$110,389 49		$216,985 76		$337,464 67
ASSETS.								
Premium notes of policy holders	$35,462 46		$92,487 27		$160,124 93		$283,000 07	
Cash on hand and due from policy holders for cash premiums	2,986 02		16,500 74		35,408 66		45,464 00	
Am't secured by mortgage and judgment	332 47		332 47		332 47			
	300 00		1,000 00		1,000 00		1000 00	
Office furniture and fixtures		30,080 95		110,389 49		216,985 76		327,464 67
Whole number of policies issued		4,807		8,979		14,857		22,001
Am't of outstanding risks thereon		$2,409,650 49		$5,451,115 49		$10,320,189 00		$15,962,000 00
Total am't of losses paid and settled		2,409 45		5,903 31		8,450 01		21,413 97
Losses reported and awaiting further proof *		1,187		499 53		7,351 12		* 2,000 00
Whole number of policies during the year		$1,140,076 00		3,723		5,778		7,796
Am't of outstanding risks thereon		17,109 82		$3,916,115 49		$5,316,173 00		$6,069,513 00
Am't of premium notes thereon		11,059 04		68,789 45		93,944 06		106,583 93
Am't of cash premiums thereon		3,317 70		11,059 04		35,577 36		43,577 36
Am't of commissions paid to agents				10,339 18		7,400 84		† 45,727 90
Am't of expenses paid, including all compensation of officers, printing, advertising, postage, and all other incidental expenses		3,317 71		5,847 44		9,071 89		7,999 96

* Resisted as frandulent.

† Deducting agents' commissions.

DIRECTORS FOR THE YEAR 1862.

J. W. BOYD, Walworth Co.
D. WORTHINGTON, Waukesha Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
ORRIN GUERNSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
DAVID TAYLOR, Sheboygan Co.
S. R. McCLELLAN, Kenosha Co.
J. T. LEWIS, Columbia Co.
JOHN TOAY, Iowa Co.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. F. HASTINGS, General Agent.

LOSSES PAID BY THE COMPANY IN 1859.

S H Colman, Juneau, Dodge Co	$10 00
J H Seaman, Richland, Richland Co	10 00
Fanny Plummer, Mauston, Juneau Co	15 00
Geo F Taylor, Madison, Dane Co	15 00
Nelson Sickles, Waterloo, Jefferson Co	690 00
A L Beebee, Dunn, Dane Co	650 00
J H Barber, Juneau, Dodge Co	68 00
Jas H Main, Juneau, Dodge Co	408 57
Thos Mayhew, Merton, Waukesha Co	27 00
W N Seymour, Madison, Dane Co	20 00
Wm Edwards, Sugar Creek, Walworth Co	400 00
Leonard Hatch, Kenosha	100 00
	$2,409 45

LOSSES PAID IN 1860.

J S Wilmarth, Sun Prairie, Dane Co	$314 80
Cyrus S Davis, Menominee Falls, Wauk Co	5 00
J W Cook, Dane Co	15 35
Lewis Thompson, La Prairie, Rock Co	172 52
Henry Johnson, Somers, Kenosha Co	12 50
Pliny Putnam, Rubicon, Dodge Co	5 00
B B Thurtell, Jamestown, Grant Co	500 00
A A Anderson, Delafield, Waukesha Co	7 00
Jas T Walkin, Eagle, Waukesha Co	20 00
C Sutherland, Fitchburg, Dane Co	10 00
Harrison Koons, Concord, Jefferson Co	400 00
Owen Garity, Sullivan, Jefferson Co	6 00
C P Churchill, Waukesha Co	5 58
Caleb Jewett, Town of Madison, Dane Co	17 51
Mary La Follett, Primrose, Dane Co	115 00
Wm A Stowell, Cottage Grove, Dane Co	1,041 71
Sam H Sabin, Windsor, Dane Co	18 00
Abel Strong, Marcellon, Columbia Co	382 71
Quartus Towry, Johnstown, Rock Co	5 00
Robert Hornby, Fairfield, Sauk Co	496 05
Thos Stevens, Dane, Dane Co	200 06
John Wightman, Berry, Dane Co	751 80
Douglas Oliver, Glen Haven, Grant co	1.000 00
Josiah Pierce, Pardoeville, Columbia co	400 00
	$5,903 23

LOSSES PAID IN 1861.

L D Lateor, Janesville, Rock co	$499 53
Edward Walsh, Centre, La Fayette co	306 80
Nathan Kellogg, Madison, Dane co	15 00
Henry A Chapman, East Randolph, Col co	20 00
Jared Bishop, Jamestown, Grant co	371 00
Allen Hoxie, Porter, Rock co	1,000 00
O C Burdic, Christiana, Dane co	2 00
Samuel Cecessett, Juneau, Dodge co	13 50
Albert Gaston, Cottage Grove, Dane co	11 13
Stephen Young, Somerset, St. Croix co	389 00
A L Beebee, McFarland, Dane co	699 91
Alfred Taber, Delavan, Walworth co	350 00
Lydia D Crocker, Lake Mills, Jefferson co	2 00
John Feller, Bear Creek, Sauk co	646 65

C B Francis, Janesville, Rock co	20 00
G W Harger, Tafton, Grant co	5 00
J M Hartlin, Rutland, Dane co	4 50
B C Hildreth, Summit, Waukesha co	4 90
J S Dayton, Janesville, Rock co	30 00
Wm Kendrick, Oregon, Dane co	37 50
Henry Mitchell, Hazle Green, Grant co	25 00
John Mortimer, Boscobel, Grant co	10 00
John Kispert, Jefferson, Jefferson co	390 00
Darius Reed, Sullivan, Jefferson co	250 80
John A Gilman, Sparta, Monroe co	375 00
Rasselas Bardeen, Albion, Dane co	50 00
Hiram E Coan, Palmyra, Jefferson co	200 00
John W Butts, Cottage Grove, Dane co	262 63
Wm Aldrich, Burlington, Racine co	30 00
W W Fowler, Eagle, Waudesha co	280 g5
Levi G Kendall, Fort Atkinson, Jefferson co	100 00
John Wright, Waukesha, Waukesha co	100 00
J W Herrick, Rutland, Dane co	340 96
Geo Anschetz, Ozaukee, Ozaukee co	40 00
	$6,881 16

LOSSES PAID IN 1862.

Wm Hoos, Wautoma, Waushara co	463 17
Benj Garthwaite, Grant co	535 78
Darius Reed, Jefferson co (balance)	41 20
Hiram E Coon, Jefferson co	197 67
Nathaniel Blakely, Rock co	1,332 07
Geo Taylor, Dane co	778 45
Benj Stanton, Kenosha co	308 83
John W Butts, Dane (balance)	500 00
Henry & Smith Wright, Rock co	112 50
L D Fargo, Jefferson co	3 50
David Jones, Iowa co	000 00
John Weiner, Jefferson co	298 50
J M & N D & T W Williams, Walworth co	700 00
Pat Devine, Dane co	10 00
John Morcam, Iowa co	9 60
Frances L Mossman, Racine co	18 00
W W Hnlman, Pierce co	30 00
J C Burns, Dane co	33 10
C H Orcutt, Rock co	5 00
Richard Richards, Iowa co	334 00
J G Lyon, Fond du Lac co	358 00
Almon King, Rock co	5 00
W B Clindinnin, Winnebago co	578 00
W C DeWolf, Waukesha co	15 00
E A Carver, Dane co	455 00
Milton Jennings, Columbia co	278 84
John B Pember, Rock co	39 00
Alex McKenzie, Iowa co	55 00
Fred Haffele, Fond du Lac co	75 00
Jane Frazer, "	218 00
Wm Martens, Ozaukee co	12 00
David Evans, Marquette co	50 00
Sam Hartford, Dodge co	533 00
H A Tenney, Dane co	350 00
R R Child, Dane co	4 60
Jane Senia, Dane co	15 09
Dan Heddles, Rock co	4 00
E A McLean, La Crosse co	19 00
Herman Sander "	5 00
Wm P Bently, Dane co	900 00
Samuel ha Burt, Green co	5 15
E A Carpenter, Kenosha co	6 00
A G French, "	25 00
A Trowbridge, Dodge co	8 00
Fred Linkmire, "	300 00
D M Dippo, St Croix co	25 00
James Hunter, Buffalo co	190 00
Audrew Bailey, Rock co	7 75
James alsingham, Pierce co	750 00
Geo N Thomas, Grant co	300 00
Climena owell, Minnesota	300 00
Joseph Brookbank, St Croix co	150 00
S C Johnson, Pierce co	25 00
A W Peck, Fond du ac co	13 00
P E Hardy, Pepin co	120 00
David Evans, Marquette co	400 00
Geo M Oakley, Pierce co	113 15
Delamer Francisco, Waushara co	210 50
J E Chamberlain, Marquette co	10 00
Wm James, La Fayette co	125 00
Catharine Damaret, Dodge co	226 00
Martyn Alwyn, Sauk co	239 07
J L Phillips, Columbia co	52 00
athan Blivin, Rock co	580 42
H Kitteringham, Dane co	141 00
Sas R Chrysler, Rock co	12 50
Martin Gensmer, Dodge co	328 23
G F Lawton, Rock co	785 58
Sylvester Dunlap, Dane co	164 00
Wm Baumes, Walworth co	25 00
E Thatcher, Rock co	292 36
N J Doolittle, Rock co	46 75
Clapp & Davis, St Croix co	366 25
Chas Taylor jr, Waukesha co	26 00
Wm Perry, Iowa co	238 70
Samuel King, Minnesota	1,110 72
C H Wilder, Green co	9 50
S P Tibbits & A Foster, Walworth co	485 44
Tracy Montgomery, Rock co	36 81
Patrick D Murray, Milwaukee	800 00
Alfred Crandall, Dane co	112 50
A B Devoe, Dane co	200 00
Andrew Flam, Dane co	653 46
E C Spink, Dane co	40 00
T D & D W Kanouse, Dane co	8 00
Oliver Hanchet	620 83
Wm Robson	439 15
	$21,413 97

A Brief Summary of the Company's Plan of Operations.

1. To insure buildings at not more than two thirds their cash value, and thus protect the Company from the designs of the fraudulent, and keep the insured interested in the preservation of their property.
2. Not to insure more than $2,000 in a single risk.
3. To insure no building within twenty feet of any other building.
4. To allow the insured to set up additional stoves or make additions or alterations to the buildings, if the hazard is not increased thereby, without notifying the Company.
5. To pay damages caused by the effects of lightning, although the property may not be burned.
6. To hold itself responsible for the correctness of the surveys and other official acts of its agents.
7. To avoid over hazardous property, such as stores, mills, taverns, saloons, factories, &c., &c., and confining its business to farm and homestead risks.
8. ☞ The Premium Notes given to this company expire with the policy for which they were given, and are not held as a perpetual indebtedness against the maker—as in many Mutual Companies.

"The amount of business transacted by this Company, the promptitude, integrity and strict system which characterize every transaction, place it among the leading Insurance Companies of the West—*Mil. Sentinel.*

"This Company by fair and honorable dealing has worked its way into public confidence in a high degree; it now stands first among the home companies in the State.—*Madison State Journal.*

"We have the pleasure of an acquaintance with nearly all the officers and directors, and we know them to be such men as can be trusted with the important interests of their fellow citizens."—*Home League.*

Business of the Company for the six months ending June 30, 1863:

Number of Policies issued	5,277
Amount Premium Notes thereon	$59,417 42
Amount Cash Premiums thereon	42,946 08
Amount losses paid	10,929 99

AGGREGATE.

Total am't accumulations to July 1, 1863	$429,827 19
Total number Policies issued by the Company	27,33
" " " now in force, about	20,000

Office, Porter's Block, Madison,

D. WORTHINGTON, Sec'y.

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, FEBRUARY 1, 1864. No. 2.

The Manufacturing Interests of the Northwest.

In the years past, we of the Northwest have been content to devote our energies and our capital almost exclusively to the production of grain, and very limited quantities of the raw materials used so extensively in the great manufactories of the Eastern States and of foreign countries. So far as the manufacture of textile fabrics is concerned, this comparative exclusiveness of our attention to the agricultural, mining and lumbering interests has been, until very recently, not only pardonable, but almost necessary. Manufactures requiring the use of iron, lead, wood, &c.—such as castings, hollow-ware and hardware generally, leaden pipes and paints, furniture and wooden ware of every description, leather and linseed oil—have engaged the capital and skill of our business men to a very partial extent already; and there is no sufficient reason why these branches of industry should not employ a considerable portion of our working population, unless it can be shown that it is more economical to carry our raw materials a thousand miles to Eastern manufacturers, pay the cost of manufacture with the profits added, and then bring them back again for home consumption, than to manufacture them within our own borders. But the manufacture of linen and woolen fabrics has, until a very recent date, been prevented by the extreme cheapness of cotton. Nothing in the world could possibly compete with it and no other fibre has really attempted a competition since the perfection of the cotton-gin and the spinning-jenny.

But a new era is upon us. Cotton costs more than either flax or wool, and yet, for most purposes, is not worth half so much. During the war we shall scarcely be able to get cotton at any price; and after the war shall have ended, it will be some years before cotton-growing will have regained its former status.

In the East, many of the cotton mills have been converted into woolen factories, and new factories are being built. The operatives heretofore always employed in the stinted cotton mills of Great Britain, and the half-paid operatives from the flax and woolen mills of that and other countries are coming to our shores in great numbers. We need not fear a deficiency of workmen, therefore.

As to capital there has scarcely been a time in the history of our country when there was so much of it anxiously seeking opportunities for economical investment.

What hinders, then, that we of the Northwestern States do not also engage in the enterprise of manufacturing? It will not do to say, "Because we are an agricultural section, and it will be better for us to devote ourselves to the advancement of this single interest." We are no more an agricultural section than the United States is an agricultural country. And if it is policy for the nation to foster the manufacturing interest, as well as the agricultural, so would it be policy for the Northwest to provide itself with the means for working up at least so much of the raw material it produces as will supply

the home demand; inasmuch as all handling and carrying is at the expense of the consumer, and for the further reason that a State is always the most flourishing, all things considered, when all its resources are fully and harmoniously developed.

We know it has been repeatedly urged that it is better, for mportant political reasons, that the various leading portions of our country should severally devote themselves to the promotion of that interest for which the natural facilities are pre-eminent—that a dependency is thus perpetuated which must give greater security to the union of all.

This argument is specious enough, and it is not surprising that it should have exerted a considerable influence in times past. But, after all, no argument was ever more fallacious, and none was ever more thoroughly and entirely refuted. For what was it but this idea of interdependence that encouraged the Southern States in their late and still continued attempt to secede and break up this government? They believed that the manufacturing and commercial interests of the North could not survive without their cotton and their patronage, and so were prepared to *bully* us into submission to all their exactions, however unreasonable and absurd? And was it not that same idea of the dependence of foreign nations upon them for cotton that further encouraged the Southern States to hope that, in case of resistance on the part of the North, England and France would be forced to recognize their independence and grant them the necessary material aid?

Again, in a country so vast as ours, unless there be a community of interest there is danger of dissension and disintegration on questions of foreign policy. To one portion a protective tariff will seem necessary; to another free-trade will appear to be the true policy. And then, unless patriotism be stronger than self-interest, the Union is in peril, and ultimately almost sure to fail. Already the voice of this demon of a most blind and damnable selfishness has been heard, threatening a disseverance of the Western from the Eastern States; and had it been possible for the seceding States to break away from the authority of the Federal Government and actually establish a new and separate government, there is great reason to fear that the mad policy of a still further disruption would soon have become a ground of open contention. But, suppose the West were, likewise, to the extent of its ability and economical advantage, a manufacturing as well as a grain-growing district, would not the same foreign policy be more nearly adapted to both these great divisions of the country?

We need not argue the question further. That Union is most stable and permanent the interests of whose component parts are most homogeneous and harmonious.

The Northwestern States are just as surely destined to become manufacturing States—agriculture still remaining the paramount interest—as that they are so munificently supplied with all the natural facilities therefor; and the sooner we are convinced of it and wisely shape our policy with reference to that end, the better it will be for our immediate and future prosperity, whether as individual States, or as an undivided—and, we trust in God, *indivisible*—part of a glorious common country.

Why not Grow Wool instead of Wheat?

A farmer on the Illinois prairies, to transfer his products to the seaboard, has to pay 80 per cent. of its value on wheat, 80 per cent on pork, 20 per cent. on beef, and 4 per cent. on wool. It takes one bushel of wheat to send another to market; six bushels of corn to carry one to New York; while one pound of wool will send forty to the same market. Why not turn attention to wool-growing, then?—*Boston Cult.*

That is just what we *are* doing. Some of our farmers have raised wheat so long that it almost kills them to either quit or go on, and, on this account, we are not getting into sheep husbandry as fast as we might. But they are getting their eyes wide open by degrees, and ere many years more have elapsed our hills will be white with grazing flocks.

Hints for February.

February is a month for doing not so much any systematic kind of work—unless it be sugar-making in some localities—as for doing a thousand things preparatory to the busy season of spring.

THE CARE OF STOCK,

Which is always in order and always imperative, has been so often discussed that further suggestions would seem unnecessary. Only this we will say: There is nothing gained by putting your animals on a short allowance, so that they must inevitably run down in flesh and health. It will cost more to get them up again to the preper standard than to keep them there; besides which the constitution of any animal is injured by a protracted semi-starvation. See articles on care of sheep in Stock Register.

IMPLEMENTS FOR SPRING WORK.

Look them over; repair such as you intend to use, and make arrangements for the purchase of such as should be added to your stock. Stopping the spring work, when once fairly begun, for the repair of rickety plows, harrows and drills is very poor economy, and convincing evidence of *slackness* on the part of those who are compelled to do it.

NURSERY STOCK

Of every description, should be ordered without delay,. as the rule of "first come, first served," in these times, when stock of this sort is in great demand, is pretty sure to result in the sale of trees and plants of an inferior quality to those who order late. Labels, stakes, &c., may also be prepared in advance.

THE PLAN OF CROPS FOR THE YEAR.

Winter is the time for perfecting all plans for the year. If you have been neglectful of manuring and of rotation hitherto, make the spring of 1864 the beginning of a new era. See article on rotation in this No.

SUGAR-MAKING

In localities that abound in the maple, usually begins in the latter part of February, and continues six or seven weeks.

In these times, when the price of sugar is so high, the inducement to its manufacture is much greater than ever before, and, then, the sharp weather of the present winter is favorable, so that there will probably be more of it made than for years before.

The improvements that have been made in the manufacture within the past few years refer chiefly to the tapping of the trees and the boiling of the sap.

The old practice of tapping with the ax, by chopping and even half girdling the trees, was, of course, ruinous to them, and really answered no better purpose than one or two borings, as is the method of later times. The sap is chiefly in the albumen or outer, white wood, near the bark, and more of it is obtained by boring to the depth of about one-half inch into the wood, than by the deeper boring so often practiced. If it is intended to cut down the trees after one or two years, each tree may be tapped in several places; but otherwise there should be but one or two tappings—according to the size of the tree—the same season. A half-inch augur is large enough for tapping, if small spouts can be had.

The boiling is done much more economically by the sheet iron pans now in use than by the potash kettles of the olden time. Any brick or stone mason, and almost any farmer with ordinary ingenuity, can construct the arch, and the pans can be had of any hardware manufacturer for about 30 cents per pound, ready for use. The size and number will, of course, depend upon the extent of the business to be done.

Tubs of pine, or cedar, are much nicer and better than troughs. Pains should be taken to keep them clean and sweet.

HORTICULTURAL MATTERS

Appropriate to the season are discussed in the Horticultural Department, which see.

PROFITABLENESS OF CABBAGE FOR STOCK.—A correspondent of the Mark Lane *Express*, who highly extols the cabbage for feeding milch cows, store cattle, sheep and swine, and more especially for spring feeding of lambing ewes, says that the average product per acre in England may be stated at twenty-five tons.

Interesting Items about Sorghum.

COLLATED FROM THE U. S. AG. REPORT FOR 1862.

About twelve years since, the French Minister to China sent home seeds from that country, and among the rest a few seeds of Sorghum. On being planted *only one* of them grew, and hence, from this little accident, all the present Sorghum of the country sprahg.

The seeds for a time were sold for a franc apiece; were brought to America in 1854 and distributed by the Patent Office, and amid all sorts of conflicting ideas among people, it is rapidly advancing to vast proportions and to great importance.

The amount of syrup already produced from it is probably very much greater than is generally supposed, even by the well read. The statistics of 1862 show that the product in the Western States, for that year, was nearly 16,000,000 gallons; only a fraction less than the entire syrup product of the South for the last year before the Rebellion (1861) which was only a little over 16,000,000 gallons. Thus in ten years, from the one single seed, were we up with the South in that great staple interest.

Probably the breadth planted in 1863 was more than one-half larger than in 1862, and but for the unfavorableness of the season would have yielded from 25,000,000 to 30,000,000 of gallons. One operator in Illinois was interested as a partner in several establishments, and expected, if the season had been favorable, to have averaged 70,000 gallons per day. This shows a little of the extent to which it is being gone into already, even in its infancy. And when we take the fact into consideration that only favorable seasons are equivalent to secure the most entire success, and that the frosty seasons are only exceptional and rare, we may naturally look for great and important results from this new interest, and that speedily.

Ohio produced 6,484,800 gallons in 1862. Iowa next in amount, 3,996,964; while Wisconsin counts only 38,516 for the same year. The crop of Wisconsin would probably have been from four to six times as much with a favorable season the past year.

The entire crop of Michigan in 1862 averaged 183 gallons to the acre, being the highest average from any State. Probably mainly for the reason that they happened to have extra seed; may be, in a small degree, because they generally have a sandy, quick soil.

Ohio, notwithstanding she produced 6,484,800 gallons, only averaged 130 gallons to the acre; whilst Minnesota, which many people suppose too far north to grow it at all, averaged 125 gallons per acre, showing conclusively that the entire Northwest, so far as yet settled, can safely and profitably grow Sorghum, even with our present imperfect knowledge of the best kinds of seed and modes of management.

The past season, and in fact all seasons, have demonstrated that wherever any kind of Indian corn will ripen, some kind of cane will also ripen, and the latter can be grown at least as safely and profitably as the other.

The average crop of the ten States in the Union that grew Sorghum (to wit: Ohio, Indiana, Illinois, Iowa, Missouri, Michigan, Wisconsin, California, Kansas and Minnesota) averaged all through 148½ gallons per acre, a surprising average certainly, when we consider our present imperfect knowledge of the best varieties of seed, as well as the vast amount of very imperfect machinery for manufacturing it.

One instance is mentioned in the Report of a yield of 500 gallons per acre from a field sowed broadcast. Many yields of 200 and 250 gallons to the acre are already on record, all of which go to show that a much higher average than 148½ gallons may and will soon be attained.

Over 30,000,000 gallons of syrup and molasses are shown by the Report to have been imported into the U. S. from the West Indies, during the year of 1861, which, when added to the crop of Louisiana for the same year, shows a total of some 40,000,000 gallons for the regular yearly consumption of the coun-

try; and that the consumption is rapidly increasing, even at high prices, is well known. And that it would be rapidly doubled, on a low-priced, home-made article, is a self-evident fact. So there need be no fear of an excess of a good article to glut the market, at present.

I am prepared to see 100,000,000 gallons annually produced within ten years; And, in fact, a much larger quantity, if as much success is attained in graining it into sugar as present successes seem to warrant.

The period may not at all be distant when the syrup and sugar crop of the West shall dispute the palm with its wheat crop. And even if they go hand in hand, they will furnish a world of material for the *sweet-cake* of the world, which in the progress of luxury may soon be wanted instead of plain, old-fashioned bread.

Experience has already fully demonstrated that any good observant farmer can rig a camp, and get the hang of making good syrup, at least, in *three days*, and also that with a rig that costs one-third of the money he can earn twice as much per day making syrup, as he can running a threshing machine, besides the fact that the work is much more pleasant.

As fast as the foregoing facts come to be better known and understood, we may confidently expect to see a rush into the business that will rapidly swell up the amount of its production. Every neighborhood may, and should, have its set of machinery, and still there will be no more danger of an over production, than of wheat or wool. Sorghum is yet to become "a great institution" even here among us. D. J. POWERS.

MADISON, Dec. 28, 1863.

GAS TAR FOR POSTS.—This application is far better than the old mode of charring, and is much more easily applied. Charring only affects the outside, admitting moisture into the inside and rotting it; the tar, if applied hot to well seasoned posts, entirely excludes moisture. S. P. Wormly, of Michigan, states in the *Country Gentleman* that seven years ago he built a mile of board fence, placing the posts, for one minute, in a large kettle of hot gas tar, so as to coat them six inches above the surface. They now appear to be as sound as when set; the posts of another fence, set about the same time, without tarring, are about half decayed.—*Annual Register.*

Switzerland at the World's Fair.

Great Britain with her numerous colonies, the Latin nations of Europe, and then the great family of German States. What next? Let me see. There are several courts yet to be visited, ere our survey will have been finished, though they occupy a narrow space and can all be canvassed in much less time than we devoted to Great Britain alone. The Scandinavian states, Russia, Turkey, Greece, and Egypt, and, finally, the South American states; these yet remain; and most interesting fields do they furnish for our inspection and enquiry.

Stop! One court we have omitted to name, —and pardonably, too, for the whole country it represents stands alone and hardly admits of classification; its people being a mosaic of German, French and Italian nationalities. Nay, it is also alone in another and prouder sense: its government is the political anomaly of Europe. Behold its emblazoned name, and the representative products of its industry and genius! But a moment ago we were in the lowlands of wonder-working Holland reclaimed from the sea. Now, as if transported by magic from the mouth of the Rhine to its sources, we stand in the midst of the glorious little Mountain Republic!

Above us, and above the floating clouds, St. Gothard, Monte Rosa, Jungfrau, and Mutterhorn, the eternal mountains, stand, their icy peaks glittering from their sublime heights like sun-eclipsing stars of the upper day. Before us in the serene majesty of unnumbered centuries, lie the slow-moving glaciers. Below us are the deep fairy vales of Oberland, of Chamouni, Monte Rosa, and Zermatt, so indescribably charming for the contrasts they furnish, for their little smiling fields of grass and grain, for the nestling chalets of the mountaineers, whose bleating flocks, with the sweet music of tinkling bells, clamber on the

steeps, and for the thousands of leaping, foaming, laughing rivulets, born of mountain snow, that thence make their way to the northern and the southern seas. There, too, are beautiful lakes, embosomed in the mountains—Geneva, Constance, Maggiore, Neufchatel, Bienne, Zug, Morat, Thun, and many more—and there are the roaring cataracts of Aar, of Staubach, of Pianazzo, and an hundred more; and if you listen you shall hear the thunder of the avalanche!

This is Switzerland! home, and only home, of Republican Liberty in Europe. Fitting birthplace of a power that is destined to overturn the thrones of the neighboring nations.

Switzerland. Well, let us see what she is doing for civilization.

Here are samples of iron, copper, lead, salt and gypsum. Are the mines of which they are representative extensive enough to warrant any considerable dependence upon the mineral resources of the Republic? They are not believed to be so, and yet her mines are a growing source of revenue; and the manufactures from these metals show that the metallurgic art of the Republic has nothing to be ashamed of.

Her agricultural resources and progress are but partially illustrated. She is, nevertheless, worthy of consideration in this regard; for, although but one-third part of her territory is habitable, and a much less portion is susceptible of cultivation, she manages to produce almost enough of the cereal grains for home consumption, and an abundance of whatever else is really essential to the sustentation of her two and a half millions of people. Hemp and flax are extensively grown, as are also many of the most desirable fruits, such as apples,* pears, plums, cherries, and, in the southern and more favorably situated portions, even apricots, peaches, almonds, and figs. The vine, of course, flourishes in every part, and its cultivation gives employment to thousands of the men and women of the country.

I regret not to find here, in the exhibition representative samples of Swiss dairy products, as they constitute so important a part of the food of the people, especially of those who live in the highest districts.

Stock-raising is, in general, one of the most important branches of industry in Switzerland, as will appear by the number of animals of different species, to wit: about 900,000 head of cattle, 470,000 head of sheep, 350,000 goats, 320,000 swine, and over 100,000 horses.

The cattle are a peculiar breed, beautiful, remarkably well kept and highly profitable, either for beef, or for the production of butter and cheese.

But Switzerland especially excels in certain branches of manufacture. Guns for her well drilled army of a hundred and ten thousand soldiers, regular and reserve, and for exportation; mathematical and philosophical instruments, representative of her genius for science and scientific discovery; a magnificent show of clocks, watches, and chronometers of every description—in which branch of manufacture the Swiss take precedence of all other artizans—together with a most interesting collection of the tools and materials used in the construction of timekeepers; cases of watches in parts ready to be put together, and boxes of precious stones used in their ornamentation; musical boxes of the most novel construction and exquisite finish;—all these are here and deservedly attract great attention.

It is the common impression that in Geneva and Neufchatel, the two cities most famous in all the world for watchmaking, there are extensive factories in which they are made.—This is not so, as I found by investigation on occasion of my visit to those places last month. There are no factories at all. The watches are all made by workmen at their own homes, each one taking the material furnished by the manufacturer, so called, for a *particular part*, with the making of which he has long been familiar. When the material is worked up,

* On our way across the Alps we were often surprised by beautiful little orchards, all in bloom and clinging so cheerly to the rocky sides of mountains clothed with eternal snow.—EDITOR.

the mechanics severally take their different parts in to their employers, by whom, or for whom, they are put together, polished up and put on sale. The great watch establishments are, therefore, nothing more than sale rooms,

But here also are fine textile fabrics, silk, linen and cotton. The silks were mostly woven at Zurich and Basel, and are remarkable for the excellence of their weaving, as well as for the extraordinary beauty of their dyes. The cotton fabrics are of good quality and chiefly from Zurich, Appenzell, and St. Gall; the hemp and linen from Thurgau St. Gall and Aargau.

The paper, leather, and straw, and numerous fancy manufactures from Basel form an interesting collection, and do credit to the science, skill and taste of the industrious people of that ancient city.

Splendid, sweet-toned pianos, too. The Swiss have a genius for music and musical instruments; pianos and musical boxes, more particularly, are now extensively exported.

All in all, Switzerland has done herself credit by her exhibition. She is deservedly noted for the industry, enterprise and intelligence of her people. With an area only a little more than one-fourth as large as that of Wisconsin, and being pretty much all mountains, she has, nevertheless, already 1,100 miles of railway and 1,800 miles of telegraph, —mostly built within the last ten years—and is rapidly going forward with these and all other internal improvements. May God bless her, and perpetuate her as a beacon light to the groping nations of the Old World.

Save the Liquid Manures.

They are worth the gold, being rich in those necessary constituents of plants which are most sparingly found in the soil.

A cow annually voids over 6,370 pounds of urine, which contains solid matter in the form of phosphates, urates, &c., to the amount of about one pound in seventeen of the urine, and of a value quite equal to that of the best guano in the world.

The price of the best Peruvian guano, on the seaboard, is about $60 per ton. At this rate the value of the urine of a single cow may be set down at *over* $11 *per annum*. Worth saving, surely.

States Pledged to Establish Agricultural Colleges.

The Secretary of the Interior reports as follows concerning the lands donated for college purposes:

"The States which have accepted the college land grants, prior to the 30th of September, 1863, "in place," are as follows:

In place.	Acres.
Iowa	240,000
Kansas	90,000
Michigan	240,000
Minnesota	120,000
Wisconsin	240,000
Total acres	930,000

In Scrip.	Acres.
Rhode Island	120,000
Illinois	480,000
Kentucky	330 000
Vermont	150,000
New York	990.000
Pennsylvania	780,000
New Jersey	210,000
Massachusetts	360,000
New Hampshire	150,000
Connecticut	180,000
Total acres	3,750,000

Requiring twenty-three thousand, four hundred and thirty-five pieces of scrip, or some ninety volumes of records. Special certificates, with printed forms of selections, have been duly furnished to the States authorized to make selections within their limits; and the work of issuing scrip to the other States has progressed with great rapidity, the whole complement due Rhode Island, Kentucky, Vermont and New York having been prepared, whilst all due the other States above mentioned, it is expected, will be dispatched to the proper destinations before the end of December next."

It will be seen from this list that the States of Maine, Ohio, and Indiana have lost their lands by default; as have also all the States south of Mason and Dixon's line, together with California and Oregon.—*Prairie Farmer.*

Not at all, neighbor; those States have not yet accepted the offered lands, but as they have until July 2d, of the present year, in which to do so, there is scarcely a possibility that any of the loyal States will be left out in the cold. The neglect to more promptly accept the grant has, in most cases, resulted from a disagreement in the legislatures of the respective States on questions which should have been treated as subsequent issues.

THE MANURE OF SHEEP is much more valuable than that of cattle; thirty-six pounds of the former being equal in value to one hundred pounds of the latter.

Sorghum—The February Convention.

The culture of Sorghum, in its various bearings, as a product coming into daily use in all the families of the Northwest, has reached that point in its progress, when it is entitled to more than a passing notice. At first broached with much timidity, through fear of another Multicaulis speculation, very little was planted. Cautiously every one ventured a few seeds, a small handful, a part of an acre, then a whole acre, and not until 1862 was there any considerable amount planted by any single individual. During the fall and winter of 1862-63, a new interest arose. Men saw money, real genuine profits, in the business; the consequence was a large increase in the number of acres planted. Hopes ran high, but, betimes they were frosted, or slightly chilled. July brought frosty nights; corn was badly injured, in many places entirely destroyed; but not so with the cane crop. We have yet to hear of the first field of cane injured by this frost. Then came an early fall frost, and while nearly all the corn in the country was killed by the first frost of fall, not until the second or third came did the sugar cane show mueh, if any, signs of damage.

This hardiness is characteristic of the cane everywhere. Having traveled considerably in this State, northern Iowa, and northern and central Illinois, I have found it always more hardy and enduring against frost than corn. So that I think there need be no fear about the success of the cane crop anywhere where dent corn ordinarily ripens.

The past year was an exception. Everywhere the corn was cut off. All through Illinois, into portions of Kentucky, hundreds of miles south of here, where cane fields are measured by hundreds of acres, instead of "patches," even there, where the losses were far greater than here, none are discouraged. But the experience of most, even in the past frosty season, has been flattering. Not quite as large a yield of syrup, and, in some cases, not as light colored, but quite as sweet. Indeed, the best syrup I ever saw was made last fall, and from *frosty* cane at that

These facts are highly interesting and encouraging; for while many are ready to imagine that we are too far north to enter into Sorgho culture with any degree of certainty of success, let all such remember the fate of our neighbors in Illinois. But there is very much to be learned. Those who have had the most experience declare they are only in the infant school, and it's a long ways yet to the "head."

The Convention of Sorghum Growers, held in this city, last March, resulted in very much good to those present, and had the discussion been properly compiled and published, might have been of wide spread benefit. We are glad that a similar convention is to be held here in Madison, the first week in February. We bespeak for all a good time, one fraught with much general and personal benefit. Let every one who is within the reach of the FARMER'S voice, or any of those journals which may copy and draw attention to the Editor's notice, come, and give their experience in this matter.

There may be many who cannot, from various causes, be present, who have been engaged in its culture the past or previous seasons. Let all such heed the invitation to send in the results of their experience by letter. The farmers of the entire Northwest are anxious for the latest and most reliable information upon the culture and manufacture of the cane, all its varieties included; and therefore we solicit a reply to as many of the following interrogatories as possible, previous to the first of February. Don't hold back because your cane crop was small, or only a "patch." It is the facts we want more than acres.

QUESTIONS TO BE ANSWERED.

1. What kind of soil?
2. Was your land high and rolling, or bottom? Which do you think the best?
3. What time did you plant?
4. What variety of cane cultivated?
5. Seed planted dry or soaked; if soaked, the method and time?
6. How many acres planted in 1863?

7. Any fertilizers used, and what?

8. Manner of cultivating; actual or estimated cost per acre for the season?

9. What time did your cane begin to head out, and what time did it ripen?

10. Method of harvesting?

11. Have you worked any before fully ripe, and how does it compare with ripe cane in quantity and quality of syrup?

12. Do you remove the cane leaves, that is, strip it?

13. What would be the effect to pass the cane through the crusher without stripping?

14. How do upright and horizontal crushers compare in capacity and convenience of use?

15. Your method of evaporating?

16. Must cane be worked immediately after harvesting?

17. How long can it be kept without fermentation and consequent deterioration?

18. Any chemicals used in defecation, and what?

19. Any sugar made; how much sugar and syrup, and quality?

20. How much in town and county?

21. Yield per acre in gallons, and value?

22. Is Sorgho culture in your section proving satisfactory?

23. Actual or estimated cost per gallon to manufacture?

Friends of Sorghum in all parts of the State! again I say, if you *cannot come*, send in your returns. O. S. WILLEY.

MADISON, Jan. 1864.

1722 and 1822.

Among Hone's works there is this rhymed advice to the agriculturists of the date 1722:

"Man. to the plow:
Wife, to the cow;
Girl, to the sow;
Boy, to the mow;
And your rents will be netted."

These lines were happily travestied in the *Times* newspaper, under the title of "The Farmer's Centenary Contrasted," in 1822—in illustration of the causes of agricultural distress:

"Man, tally-ho;
Miss, piano;
Wife, silk and satin;
Boy, Greek and Latin;
And you'll be *Gazetted*.

This progress is like that of the Irishman's mule—*backwards*.

Clover, and How to Grow it.

It is generally understood that clover is beneficial to land. This is acknowledged by all who have tried it. Then why is it that so few farmers in Wisconsin are in the habit of growing it? If any good and sufficient reason can be shown, we should like to see it.

We know that pleas of one kind and another are set up by those who neglect this best of crops, but are they really valid? That's the question. One farmer has such an abundance of wild grass, prairie or marsh, or both, that he "doesn't need to raise clover." Another "keeps but little stock, and must devote all his land to some thing that will pay." A third "has tried to grow clover and failed."

1. Wild grass answers a very good purpose when you can't get anything better, and Providence was very kind in providing those vast natural meadows of the Northwest that have so materially helped the pioneer to make an easy start in the world. But it is, nevertheless, quite demonstrable by actual experiment and analysis that for some purposes it is quite inferior to clover. Cattle will thrive upon it, and horses make but little complaint. Sheep, too, will winter upon it, as they would on good oat straw; but no farmer who has raised clover, and compared it, when well cured, with marsh hay, will be heard to say, that he does not need it for winter feeding. And then, as a green crop, there is nothing like it, especially for horses and sheep.

2. "Keep but little stock!" Then the greater is the reproach. Every farmer, as a general rule, should keep about all the stock he can well supply with proper food. Sheep, at the present, yield a better profit, by at least one hundred per cent., than grain, and the man who has not learned that fact must be very blind; besides which, stock is essential to the continued fertility of the land.

3. "Tried to grow clover and failed!"—Why? Did it die out in spite of all that could be done? Perhaps. But it is altogether more likely that nothing at all was done to prevent it.

If it kills out the first season, it is more probably due to the influence of excessive summer heat than to the extreme cold. Sow it, in that case, early in the fall, say about the first of September, and sow with plaster, a half bushel or so to the acre. It will thus take root and get such a start, by the following summer, as to be a protection to itself against the summer sun. If sown with some grain crop, all the better; each will help the other.

Here is a point: clover must have a good supply of lime, and therefore usually succeeds best on those soils which are denominated calcareous. Some soils may already contain enough of it; but even then the plaster will do no harm. The following is a good method of sowing clover seed with plaster: Moisten the seed and thoroughly mix it with dampened plaster. Sow in the proportion of seven or eight pounds of clover and half a bushel of gypsum to the acre.

If you have clover already started, dampen the plaster and sow it on broadcast alone in the spring.

We have seen better clover in Wisconsin than anywhere else in the world, and we are confident that most of the failures are more justly attributable to a lack of sound judgment and persevering effort on the part of the farmer than to anything in the climate. We would never sow a field of wheat, without adding a few pounds of clover seed. If you design to follow with corn, you will have the advantage of good fall feed and a cleansed and otherwise greatly improved soil.

Forbidden Fruit—Introduction of Potatoes into France.

M. Noel, a French agriculturist, speaking of the introduction of the potato into France, says:—"This vegetable was viewed by the people with extreme disfavor when first introduced, and many expedients were adopted to induce them to use it, but without success. In vain did Louis XVI wear its flower in his buttonhole, and in vain were samples of the tubers distributed among the farmers; they gave them to their pigs, but would not use them themselves. At length, Parmentier, the chemist, who well knew the nutritive qualities of the potato, and was most anxious to see it in general use, hit upon the following ingenious plan: He planted a good breadth of potatoes, at Sablons, close to Paris, and paid great attention to their cultivation. When the roots were nearly ripe, he put notices up around the field that all persons who stole away any of the potatoes would be prosecuted with the utmost rigor of the law. No sooner were the new roots thus forbidden, as it were, by authority, than all persons seemed eager to eat them, and in a fortnight the whole crop was stolen, and without a doubt eaten. The new vegetable having been found to be excellent food, was soon after cultivated in every part of the kingdom.—*Ex.*

The Wild Oat Again.

Ed. Farmer:—In compliance with your suggestion in the December No. of the Farmer, I will attempt to furnish you with more information in relation to the Wild Oat, so termed.

I cannot, at this season of the year, furnish anything more than a sample of the seed, but I would remark that when it is growing, it has every appearance of the common oat. It did not attract much attention until two harvests since. Since then it has overrun whole fields, and ruined the crops.

The articles in the Farmer on the subject have awakened a great deal of discussion and inquiry, and farmers are anxiously looking for some remedy. I have been shown a bin of one hundred bushels (from which the sample presented was taken), grown on a beautiful field of forty acres of prairie, on which clean wheat was sown. When it is understood that the greater part shelled and fell to the ground, this circumstance will furnish some idea of its injurious consequences.

It will be a great favor if some one will point out its origin and a means of eradicating it from the soil. Farmers here are anxiously looking to the Farmer for some information on the subject. Professor Lapham has written me on the subject. I shall furnish him a sample of the grain, and all the information on the subject I can.

A. Pickett.

Wehlauner, Dec. 23. 1863.

Sorghum—Experiences and Prospects.

MR. EDITOR:—Just as I expected—Sorghum has become, or, at least, is fast becoming, one of the "chief absorbent topics" among the agriculturists of the Northwest. I thought it proper to let you and the readers of the FARMER know that we have been doing a little during the past season, in the way of raising and manufacturing sugar cane; also that we intend to do still more the coming season, if all is well; for the people in this vicinity are awakening to see the necessity and profit of growing this valuable crop.

Although it has been a very unfavorable season for cane raising, still it has paid very well here; crops yielding from eighty to one hundred and fifty gallons per acre. There have been six or seven mills in operation within five miles of this place,— each one having all the work to do that it was capable of performing, for the term of four or five weeks; and this is only a beginning of what will be done in the future, if the seasons prove tolerably favorable.

The African cane has been the most profitable the past season, on account of its being two or three weeks earlier than the Chinese. I prefer the Sorghum to the Imphee, when both are ripe. I think the flavor is better.—But the Imphee is more sure to ripen, consequently it is the safer kind to plant in this latitude, as a rule.

I have manufactured for myself and others a good article of syrup to the amount of 1,350 gallons. I was at work at it just one month. I used one of Skinner's Mendota mills—the same that I used last season. I used Brainard's evaporator for defecating, and the common Russia iron pan for finishing.

Should I do anything at this business another season, I shall do what I do on a larger scale, and, consequently, more expeditiously. I wish to say here, that I think I could put cane enough through my mill daily to make from 80 to 100 gallons of syrup.

O. P. DOW.

PALMYRA, Dec. 14, 1863.

Good Chance for Sugar Making in the Pineries.

EDITOR FARMER:—Much being said in the agricultural papers concerning the high price of sugar, and the practicability of procuring a supply from the Sugar Beet, I wish to speak to the farmers of Wisconsin, through the FARMER, in reference to the vast amount of Maple in our State, and the facility of procuring sugar from the same.

Most people have the opinion that the pine regions are a vast extent of sand, producing only pine, sweet fern, and wintergreen—a very erroneous opinion. The pine grows mostly in belts along the streams, from a half a mile to two and a half miles wide, according to the width of the stream. Between these belts is hard wood timber, with a great abundance of sugar maple, from which large quantities of the best of sugar can be manufactured with less expense than it can be procured from other sources.

Said lands belong chiefly to speculators, except what is occupied by settlers, and they are quite numerous. As tapping the maple with a bit or augur does them no damage, no speculator would refuse to let them be tapped, by having the taxes paid, or by having his family supplied with a few pounds of sugar.

On Maple Creek, and so on from twelve to twenty miles north of New London, five thousand good-sized maples can be tapped on one quarter section, mostly clear of underbrush and fallen trees. Many farmers in Wisconsin are not so much engaged in the winter season but that they can form companies, go on to the ground in February, with boiling apparatus and a small capital, build a cheap boiling-house, with cooking and sleeping apartments, make troughs of sapling pines, and spiles or spouts of most any free splitting timber, and have all arranged by the 20th of said month.

By improving all the sugar weather until the buds start, when it will be too late to proceed further, except to make a few gallons of syrup, as sugar will not *grain* after the spring is so far advanced as to start the buds—from 1,000 to 20,000 lbs. of the best of sweetning

can be procured, according to the size of the company.

The facilities for bringing it away are first rate. Steamboats run, as soon as navigation is open, to Shawano, stopping at New London and other points on the Big Wolf. Scows and flatboats can be poled down the Little Wolf and Embarras to Oshkosh, and the sugar may thence be taken on by rail.

Vast agricultural wealth lies hidden in those northern forests, as reported by Messrs. Reed and Hammond, Commissioners to select the lands donated by Congress to aid in the endowment of an Agricultural College. Not only in producing sugar, but the time is not far distant when quantities of farm produce will be carried down those northern streams that will astonish all prairiedom. Thousands of dollars can be saved to Wisconsin, every year, by a little exertion on the part of its inhabitants in producing sugar alone.

E. REYNOLDS.

METOMEN, Dec. 14, 1863.

How is a Man to Learn Farming?

Just as he would acquire any other art or profession—*by serving an apprenticeship to it.* If agricultural education be not practical, neither is it profitable. Of course we do not call it useless—no addition to mental wealth is ever altogether useless—but it stops short of the point where, in ordinary language, it can be turned to use. What do young men go to Colleges of Agriculture for? It is that they may learn how to make a livelihood and income by farming. But if the education they receive be not practical, it will not enable them to reach this end. The student of agriculture may have acqiured a knowledge of the general principles involved in his profession, but, until he has learned the art, his knowledge cannot guide aright. And a graduate who has not added practical knowledge to his science, will only bring his diploma to contempt. These, it may be said, are mere assertion; but examples in abundance of the inefficiency of mere general and scientific knowledge can be cited in illustration of their accuracy.

No one is less likely than the present writer to contend for a regard to agriculture exclusively as a money-making routine of operations. Let us admit it cordially and gratefully as "the art of all the sciences," affording, in its intelligent prosecution, scope for the exercise and enjoyment of the whole nature of man. The farm is no mere field for dull routine; it is the platform on which the best minds of the day are successfully employing their highest energies. We must not, however, forget that agriculture is a routine of operations; and unless a man knows how each is to be performed, he is not an agriculturist. Instruction in the details of farm practice is thus an essential part of agricultural education; and unless our agricultural colleges take jealous and especial care of this, the agricultural degree which they confer upon their finished students will prove, agriculturally, worthless.—*London Gardener's Chron.*

The above is the language of sound practical common sense—the very best kind of sense that we know anything about. Mere science, of itself, without ample illustration of its applicability in practice, while it would not be valueless, would, nevertheless, be of comparatively little worth to the student of Agriculture. And, therefore, it is that we insist upon the importance to our proposed Agricultural College of a varied, well-stocked, and thoroughly managed Farm, Model and Experimental.

The Mania for Live Fences—Good that may Come of it.

"The taste for live fences and ornamental hedges has rapidly developed in the West during the past dozen years. The cost of fencing with rails or boards caused by the scarcity of fencing timber and the high price of lumber and its high rates of transportation to the interior, has made the fence question one of serious interest to Western farmers. Wire, tried with considerable success and satisfaction in some localities, has so advanced in price that it is almost beyond reach—certainly beyond economic reach. All these things combined have made the subject of Live Fences one of great interest. Their beauty and durability have recommended them to general use. Hence the growing favor with which the Osage Orange has of late years been received throughout all Central and Southern Illinois, and in similar latitudes in other prairie States. Hence the grand rush into willow planting, the past two years, further north.—*Prairie Farmer.*

Just so, neighbor. And is it not likely that great good is to come to the Prairie States out of this "grand rush into willow planting?" We think so; for, although the much lauded Grey Willow may prove a partial failure, still it will probably be allowed to grow for the

partial advantage of something that will turn the wind to some extent, and at the same time add a most beautiful feature to the now bald and monotonous landscape. It will be worth a great deal for just that alone.

And then when the farmers see how much of value and beauty has been added to their farms at so trifling an expense, we may expect them to make groves and division lines of yet more valuable trees. In most parts of the Old World, Forestry is esteemed an important branch of husbandry, and is taught with great care in all the agricultural schools. American farmers have likewise given much attention to forests, but it has been chiefly in the way of cutting them down without mercy, and, we may safely say, with a senseless vandalism that ought to disgrace, as really as it has punished, us and our posterity.

Short Chapters on Practical Affairs.

NO. III.

ROTATION OF CROPS.

We take it for granted that most farmers fully understand that all the various crops grown differ from each other in the amount of certain constituents which they contain—as, for example, of lime, potash, soda, &c.—and that the proportion of these same constituents varies for different soils. This granted, the conclusion is inevitable, and philosophic, that certain crops will, faster than others, consume the available amounts of this or that constituent in the soil, and on that account be more or less profitably grown on a given tract of land. And this is the foundation of the rotation of crops. For, after any particular crop, as wheat, for instance, has exhausted so much of a certain available constituent, such as lime, or phosphorous, and yet possesses in abundance the elements especially required by some other crop, it is simply the dictate of common sense to stop growing the first, and, for a time, cultivate the other. This would give a better return for labor, for the present, and after a while, by the action of water, air, heat and cold, the minerals in the soil which supply the requisite lime or phosphorus will have been so far decomposed as to again make possible the profitable growing of wheat.

All this, we say, is, doubtless, well understood by a majority of intelligent farmers; and yet how very few in number are they who, to any extent whatever, practice upon this principle.

We are acquainted with lands, even in this young State, upon which nothing but wheat has been grown for the past twenty years! Wheat was, at first, about the only crop that was marketable, and will always command ready cash at some price, and, therefore, they have kept on, regardless of the undeniable fact, that to-day they produce several bushels less to the acre than when they commenced.

It is natural enough that farmers who have never governed their course by the established principles of science, should begin this unreasonable practice of exclusively growing a crop for which there was an immediate and unfailing demand, inasmuch as the soil of a new country is popularly considered as next to inexhaustible. But then, why continue it for years after there is undeniable evidence of its absurdity?

In those countries where agriculture has made its highest practical attainments, it is a rule never to grow two successive crops of wheat, or other small-grain cereals, on the same piece of land.

No rule of rotation can be laid down that will be adapted to all circumstances, for it must depend, to some extent, upon differences of soil, as well as upon the nature of the market demand; but then the modifications are so easily made by any farmer of good judgment and common intelligence that no one need be at loss as to the general course.

A system practiced with good results in some parts of this country is what is called the *five-shift* rotation. The farm is divided into five fields, and the rotation commences with Indian corn, which is followed, in regular succession, by oats, wheat and clover. The corn and oats are of a nature to cleanse the soil, and very properly, therefore, precede.

As soon as the oat crop is harvested the ground is plowed, manured, and sown with winter wheat and timothy, clover being likewise sown upon the same field in the early spring. The first year after the wheat crop, the grass is mown; the second year—which is the fifth in the course—it is pastured, and turned under in the fall for corn, which, in the following spring, again begins the series.

If it is desired to grow other crops, such as rye, barley, turnips, &c., it is simply necessary to have a larger number of fields, and to take care that the green crops be thrown in between the more exhaustive grain crops. Turnips and other root crops have the effect to shade the soil with their broad leaves, to pierce and more thoroughly open it by means of their long tap-roots, and in other respects tend to the improvement of the land. For these reasons, and because they are rather essential as food for stock, it is to be regretted that they do not oftener find a place in the rotation systems of the few farmers in this country who are wisely aiming to conduct their farming operations on sound principles.

Rotation is also important for other reasons than the one above urged: it helps to rid the soil of insects which very naturally come to abound in a soil devoted to the same crop for successive years, and it insures to the farmer that variety of crops which is his only sure guaranty against those disastrous losses which sometimes fall upon those who foolishly stake their all upon a single crop.

Much more might with propriety be said on this very important subject, but we trust that all, who have been induced to reflect on it appreciate the reasons urged, and will begin, the coming season, to shape their farming plans in practical conformity therewith.

Management of Pastures.

At a late meeting of the Wapping (Mass.) Farmers' Club, the neglect of home pastures was the subject of discussion. One thought no branch of farming was neglected so much as pasturing, and no part of the farm would produce greater profit. Farmers began to realize the importance of this, and great improvements had been made within a few years. He knew of a pasture which ten years ago was valued at $10 per acre, but by cutting the brush, and sowing plaster and ashes, it is now valued at $40 per acre. Another pasture has been greatly improved by the application of ten bushels of ashes, eight bushels hen manure, and seven hundred pounds of plaster, thoroughly mixed, and sowed in May, on 14 acres, and the pasture would keep twice the number of cows it would before this method was adopted. It seemed to be the general opinion that plaster was the principal renovator, but some thought the beneficial effects of plaster depended very much upon the soil. One member had applied it to light, stony soil with but little benefit, but on clay soil its effects were lasting. One stated an instance of plaster being sown on a clay side-hill, and the effect was perceptible at quite a distance for several years.

STOCK REGISTER.

Close Stables—How to Ventilate.

We have been scolding a certain class of farmers pretty soundly for leaving their poor helpless animals exposed, without the least protection—not even a straw-covered shed, and that, too, when they are annually burning their straw to get rid of it—to the fierce storms of this northern clime. We cannot say with what, or whether, indeed, with any effect. But there stands our record; and when the Good Shepherd comes to the final gathering of all the creatures he hath made into the great fold of unfailing happiness, if any of these barbarians should find themselves "left out in the cold," while their wretched and long abused sheep, cattle, horses, asses, and swine are cleverly brought in, it will not be our fault!

But, then, it is quite possible to err on the opposite side. All animals live by breathing; and to breathe well, and economically, and a good while, it is necessary to have as pure air as possible. A close stable for a horse or cow is no better for it than a tight, unventilated bedroom for you. See to it, that, while your stabled animals are made sufficiently warm, they be not left to suffer for want of a supply of pure air.

Again, it is important that the required

ventilation be properly effected. It often happens that the horse is turned into the stable when exhausted and wet with perspiration. In such a condition, a draft of air would be very liable to result in a serious cold, and, secondarily, in acute inflammations and permanent injury, if not death. Every stable as well as grain barn, should have a ventilator on top, with which communication may be established from below—by means of box tubes, if there should be hay in the "loft," as is usually the case. The current thus established will be upward, constant and uniform; carrying off the impurities which would otherwise accumulate, and in no way endangering the health of the occupants.

China Sheep.

MR. EDITOR:—Can you, through your periodical, give me any information as to the China, or Tartary (Prolific) sheep, their good and bad qualities, where they can be obtained, &c. ELISHA A. WELLS.

Portage City, Nov. 18, 1863.

The opinion we have formed of the China Sheep, after some attention to their claims, and a discussion of their qualities by those who have had experience with them, is unfavorable to their introduction into the West.

They are remarkably prolific, it is true, increasing very commonly by duplicates, and often by triplets and quartettes. But there seems to be but little else to recommend them. Mr. George Haskell, of Ipswich, in a communication to the *Country Gentleman*, gives the following account of their introduction into this country, and of the results of twenty years' experience with them:

"Augustus Heard, the founder of the mercantile house which bears his name in China, during his residence in that empire, some twenty-five years ago, sent home to his farm in this town a select flock of these sheep.—Some of that race were kept on that farm until two years ago this fall (1863), when the last of them were sold to the butcher, at $2.50 per head. These sheep spread to other farms, and have been universally found to be both undesirable and unprofitable. All that can be said in their favor is, they are large, docile, and prolific. But when obtained of good size and in great numbers, they are not good for either wool or mutton.

"The wool is of medium length, rather coarse and thin in the fleece; which, when it is packed is of a beautiful, glossy, pearly whiteness, and, if it were worked alone, I should think it would make a beautiful fabric. At present it is an undesirable wool, and the pelts are usually thrown out by the wool-pullers.

"Nor are they better for mutton. All their fat is on the rump and tail. The tail is long, and from five to ten inches broad at the top, and is a perfect *gaub* of fat. The kidney does not fill out—the loin is thin, the leg gaunt and stringy; and the fore quarter is as blue and lean as that of an unfed sheep of the common breed."

It is barely possible that, by judicious crossing, the desirable qualities of this breed might be secured without the sacrifice of other qualities more important. We do not know who has any of them to sell, but that information could probably be had of Mr. Haskell.

"Stretches" in Sheep.

ED. FARMER:—Last winter I had two sheep die of the stretches. I opened the last one, and found part of the intestine turned over so that it formed a complete stoppage. It was badly inflamed. We had given the sheep physic, which operated to the stoppage, and no further. Will some of your contributers tell us the cure, if any there be? We supposed the cause to be eating acorns. A good preventive is to feed plenty of turnips.

J. D.

ST. MARY'S, Dec. 16, 1863.

ANSWER.—The cause of "stretches" is costiveness of the bowels. As you say, feeding turnips, or anything else, that will keep the bowels in a good condition, is a preventive. The cure requires remedies that will relieve the constipation. Simple physic, and often a mere injection of warm water will answer the purpose. In a case like the above, rising high and jerking the hind legs may loosen the knot.

The Primary and Secondary Values of Feed for Stock.

The primary value of any given kind of feed is determined by its absolute and relative power to meet the demands of the animal body for adequate nutrition and healthy growth. Almost every farmer understands that, though but few are sufficiently acquainted with their definite relative values in this regard.

But how many have ever bestowed a moment's thought, or made an enquiry as to the secondary value of feed; by which we mean its capability of being worked up by the animal organism into valuable manure? Manure, in the opinion of most farmers, is simply manure, and they attach but little, if any, value to what they hear said of the results of the analyses made by scientific men. They may have learned by actual experience that the manure of a given species of animals is better than that manufactured by another, but they refer the difference to the animal solely, whereas the difference in practical value as a fertilizer should also be referred to the quality of food.

Prof. Lawes, of England, a distinguished agriculturist and chemist, has devoted great attention to enquiries of this sort, and published very interesting results of his investigations. He found, for example; that the manure made from a ton of cotton seed meal was worth as much as four and three-fifths tons of meadow hay. Linseed meal ranked next, then wheat, then Indian meal, and lastly turnips.

An animal may survive the winter on straw and nothing else, but the story of semi-starvation will report itself in both the after condition of the animal itself, and in the comparative worthlessness of the manure.

Remember, then, that good nutritious food is, *the most economical in every point of view.*

How to Catch Sheep.—Never seize them by the wool on the back. It hurts them exceedingly, and in some cases has been known to kill them, particularly in hot weather, when they are large and fat. The best way is to avoid the wool altogether. Accustom yourself to catch them by the hind leg, or, what is still better, by the neck, placing one hand under the jaws, and the other just back of the ears. By lifting up the head in this manner, a child may hold almost any sheep without danger to the animal or himself.—*Rural An.*

Feeding Sheep.

EXPERIMENTS WITH DRY AND MIXED FEED.

Mr. J. B. Lawes, F. R. S., F. C. S., of England, has recently published the results of some very interesting and important experiments, instituted by him with a view to determine the relative advantage of dry, green and mixed feed.

The following are portions of an abstract of Mr. Lawes' report, as made bp the editor of the Genessee *Farmer:*

A number of three year old Hampshire Down wether sheep, in very poor condition, were purchased for the experiment. Twenty sheep were selected from them, and divided, as evenly as possible, into four lots of five each. They were put on rafters under cover, Nov. 30th, 1860. The five sheep at this time, in pen 1, averaged 119 lbs. each; those in pen 2, 118.6; in pen 3, 118.2; and in pen 4, 118.2 lbs.

During the first eight weeks all the pens were supplied with nothing but meadow-hay, cut up into chaff, and water. This was done for the purpose of allowing them to get accustomed to their new quarters and to each other as well as to the bulk of their food, before the experiment proper should commence. During this preliminary period of eight weeks, the five sheep in pen 1 gained 5 lbs.; in pen 2 they lost 10 lbs.; in pen 3 they lost 7 lbs; and in pen 4 they gained 11 lbs.

It was Mr. Lawes' intention to mix some straw with the hay, in one of the pens—the object being to furnish only just digestible matter enough, beside woody fibre, to keep the animals from losing weight; but it was found after a short trial that hay and straw together would not do this, and so the sheep were allowed hay alone.

Some of our farmers, who are in the habit of keeping their sheep through the winter on straw, with an occasional feed of hay, may be surprized at this result, but the facts are undoubtedly as here stated; and it might be well for them to ascertain whether sheep so fed do not actually lose rather than gain during the winter.

The experiment proper commenced Jan. 25, 1861. The five sheep in each pen were fed as follows:

Pen 1. Meadow-hay chaff alone, *ad libitum*.

Pen 2. One lb of ground be ns per head per day; meadow-hay chaff *ad libitum*.

Pen 3. One lb of ground barley per head per day; meadow-hay chaff *ad libitum*.

Pen 4. About 6½ ounces of ground beans and about 8¼ ounces of linseed oil per head per day; meadow-hay chaff *ad libitum*.

All the sheep had, in addition, an unlimited supply of water always within their reach.

The experiment was continued until Sept. 6, 1861, a period of thirty-two weeks.

In pen 1 the five sheep consumed, in thirty-two weeks, 3,658¾ lbs. of hay, and increased 84 lbs.

In pen 2 the five sheep ate 1,120 lbs. of beans, and 2,225¾ lbs. of hay, and increased 124 lbs.

In pen 3 the five sheep ate 1,120 lbs. of barley and 4,899 lbs. of hay, and increased 164 lbs.

In pen 4 the five sheep ate 426¼ lbs. of beans, 226 lbs. of linseed oil, 2,949¾ lbs. of hay and increased 171½ lbs.

In other words, each sheep in pen 1 ate on an average 22¾ lbs. of hay per head per week, and gained 8½ oz.

In pen 2 each sheep ate 6¾ lbs. of beans and 18½ lbs. of hay per week, and increased 1 lb.

In pen 3 each sheep ate 7 lbs. of barley and 18 lbs. of hay per week, and increased 1 lb. ½ oz.

In pen 4 each sheep ate 3 lbs. 10½ oz. of beans, 1 lb. 6½ oz linseed oil, 18½ lbs of hay, and increased 1 lb. 1¼ oz.

Mr. Lawes remarks:—"The general result of the experiment is, as might be expected, that sheep thus fed upon dry food alone, (with water), increased very little compared with the average result obtained with a good mixed diet of dry and succulent food."

Mr. Lawes does not say what he considers an average increase, when the sheep have dry and succulent food, but we may state that in his previous experiments sheep fed on oil-cake and turnips (Swedes) increased, on an average, 1 lb. 14 oz. per week; those fed on oats and turnips, 2 lbs ½ oz.; those fed with clover hay and turnips, 2 lbs. 3½ oz.; and those on oat straw and turnips, 1 lb 5¾ oz.

In another experiment, 27 sheep, fed in the field on turnips, clover hay and barley meal, gained, on an average, 1 lb. 14¾ oz. per head per week.

In another experiment, sheep fed on dry barley meal and mangel wurzels, increased 2 lbs. ½ oz. per week, and those on barley meal steeped in water for 36 hours, and mangel wurzels, increased 2 lbs 8½ oz. per head per week; and sheep having oilcake and mangel wurzel, 3 lbs. ½ oz. per head per week.

In another experiment, 46 Cotswold sheep, fed for twenty weeks on oilcake, clover hay and turnips (Swedes), increased 3 lbs. 2¼ oz per head per week, while 46 Hampshire Downs with the same food increased 2 lbs. 12 oz., and 47 Sussex Downs 2 lbs. 1¾ oz.

These experiments show very clearly the advantage of furnishing sheep with succulent food, such as turnips or mangel wurzels, in connection with hay and other fodder. It may safely be asserted, that sheep fed liberally on hay and grain, with some succulent food, as turnips, will increase three times as much as those fed on hay alone. The above experiments show this to be the case. So far, they sustain the opinion of our own farmers, who attribute to turnips, carrots and other root crops a higher value than the amount of nutriment they contain would indicate. A few roots given in connection with dry food imparts tone to the stomach, and probably enables the animal to extract more nourishment from the dry food.

Why do Sheep sometimes eat Wool?

PROF. J. W. HOYT:—I wish you would inform us, through the FARMER, what is the cause of sheep eating wool. I have one sheep that had almost all the wool eaten off it by the other sheep, last year, and now they have commenced on the same one again. I would like to know the cause of it, and whether there is any remedy. WM. FISH.

HARTLAND, Wis., Dec. 23, 1863.

It is difficult to determine, in many cases, just what causes the morbid appetites which sometimes very singularly characterize different animals. We know that they are not confined to sheep, for we often see animals of almost every species indulging in articles which are in no sense articles of food, and which do not seem to be of the nature of condiments. Nor are human beings exempt from these cravings, for we frequently see them indulging in the queerest freaks of appetite.

Sometimes these unaccountable cravings are, doubtless, due to a natural demand of the animal system for something it does not get with its daily food, as when perfectly healthy horses, sheep and swine betake themselves with so much apparent relish to the simple dirt of pen or pasture. And, again, they are often attributable to a derangement of the bodily health.

Our opinion is that cases of the kind referred to would be much less frequent, if animals

were properly fed and salted. But the discussion of this entire ground would occupy more space than we have now to devote to it.

It is not improbable that the eating of wool may be owing to a natural and proper desire for that universally needed, but very irregularly and stingily dealt out, condiment, common salt. All animals throw off portions of this salt through the pores of the skin in the perspiration which exudes, and it may be that sheep, half-starved for salt, adopt the pulling of wool as a means of supplying themselves with the small quantity of it that remains on the fibres, as a result of the evaporation of the water of perspiration. In the instance cited by Mr. Fish, if this explanation be valid, the particular sheep victimized last year and this has more than the ordinary amount of salt in its porspiration.

We would like to know whether the flock of sheep in question have been regularly and sufficiently salted. If not, the remedy in this case would be salt. A little every day, carefully given, until they have lost their intense craving for it, and then a reasonable quantity always accessible—this is the best method.

But, if this flock have had all the salt they wanted, then the eating of wool must be owin to an unhealthiness of the sheep, caused by improper feeding, exposure to cold, or something else that may be corrected. In this case, we would recommend a liberal use of roots and abundance of water, as the best remedy.

Should the practice of wool-eating be confined to one or a few sheep only, the inference would be that the cause is not to be found so certainly in the constipating nature of their diet. We would then recommend the giving a dose or two of something to gently act upon the bowels and regulate the system, as, for example, a couple ounces of Epsom salts, or sulphate of magnesia.

Please write us again, friend Fish, and let us solve this problem of wool-eating, if we can.

The Culture of Sheep in Wisconsin.

There is not, properly considered, a department of agriculture in Wisconsin so unnecessarily neglected as the culture of stock, and no branch of that department so needlessly omitted as the culture of sheep. Every man that has raised sheep knows that at no time do they die indebted to him, which cannot be said of other stock. Yet, in the face of this fact, farmers don't see that it will pay to bring sheep with them when they come to settle here. By taking a practical view of this matter we may be able to see where the error lies.

Most farmers in purchasing land, especially in the West, buy up all their money's worth, and often more. This is just what makes them *land poor*. It is really a disease, under which they labor for years without being relieved. All buy because it is cheap, forgetting that too much is less valuable to them than too little. This being the case, they are left no means of support when their crops fail or bring very low prices. The last condition occurs more frequently, and here they are at the mercy of the grain buyer. They have prepared their crops nicely for the buyer to make money out of them, while they get scarcely enough to pay the expense of it. In most cases the grain buyer gets all the profits of the crop. How many farmers think of this fact?

The question now arises, how can this be prevented? We answer, by raising stock, and more effectually by raising sheep, *woolly sheep*, we mean.

If a farmer has stock when grain is selling at a very low price, he can feed it, and a greater per cent. of profit can be made by so doing than by the profit per cent. of each added separately; besides, he, in a certain sense, manufactures the products of his farm, and places it in the proper form, in the shape of manure, to feed his soil again—thus improving instead of exhausting it. This may apply more directly to other stock than sheep, but it is true, nevertheless, of sheep. Sheep, with

us, are equally valuable for either wool or mutton, and hence have a double advantage over other stock. The price of mutton here compares favorably with the first price purchase in New York, and wool only varies with the per cent of transportation; while the cost of the keeping here is fully fifty per cent less than there. It certainly pays to keep sheep there; with winters equally severe, it will do to keep sheep here. Farmers cannot have forgotten that more fodder is produced per acre here than there, hence more sheep per acre can be kept. But you may say, we may keep so many sheep that their market value will be of little importance. Do not be afraid of that. Have the millions of cultivated acres of the Northwest reduced the prices of grains at the sea-coast? You will, in this respect, most certainly find the consumers equal to the producers.

As something to further convince you that wool-growing is the most profitable business you can engage in, we submit the following table showing the cost per hundred by rail to carry your produce to the sea-coast:

Wheat	1,10@1,05 80 per bu.
Oats	1,10@,50 "
Corn	1,10@ 90 "
Wool	,9J@,88 per lb.

Thus you see how much it costs to get every bushel of grain you raise to New York, your nearest seaport town, while one pound of wool will pay for the transportation of forty. You certainly must have thought of this fact before.

You may now ask what kind of sheep should we raise here? I say again, *woolly sheep*—these that have wool on their legs, belly and head. If you cannot get them, get the best you can, and take the best care of them, and you will soon have such. It does not cost as much proportionally to keep a sheep that yields six pounds of wool as one that yields but three. The proper aim of American sheep culture is the quantity, not the quality of wool—this can only be reached by proper culture. Wisconsin may as well rank among the first of States, with its staple crop wool, as New York or Vermont. It can begin with all their experience just where they now are, and keep pace with them, if the farmers say so.

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Salt for Sheep.

How many farmers feel the importance of giving salt to sheep? In our review of Roman agriculture we find that every sheep had an allowance of not less than a half ounce for every fifth day, per head. And every Englishman that is familiar with sheep culture in England will tell you the same thing. Their frequent and almost entire use of roots in winter feeding, with plenty of water, and about the above allowance of salt gives them such excellent classes of sheep. Other men than Sir John Sinclair have proven that the use of salt and pure water not only improves the sheep, but is necessary to their proper and healthy growth.

Sheep-culture has proven that salt is more necessary to sheep than to cattle. It improves them both in quantity and quality. In the winter be sure that your sheep have both salt and water; they need drink as often as a horse. Keep them sheltered from the pelting storms, with plenty of salt, clean fodder and water, and you will insure a greater growth of wool, and have healthier and better lambs when spring comes. *

Ears of the Horse.—It is a good sign for a horse to carry one ear forward and the other backward, when on a journey, because this stretching of the ears in contrary directions shows that he is attentive to every thing that is taking place around him; and while he is going he cannot be much fatigued, or likely soon to become so. Few horses sleep without pointing their ears as above, that they may receive notice of the approach of objects in every direction. "When horses or mules," says Dr. Arnott, "march in company at night, those in front direct their ears forward, those in the rear direct them back, those in the centre turn them laterally or across; the whole troop seeming thus to be actuated by one feeling, which watches the general safety!"

An elk can run a mile and a half in two minutes; an antelope in a minute; the wild mule of Tartary has even greater speed than that.

How to Prevent Horses Kicking in Harness.

Attach a stout piece of ash stick to the collar at the breast, fix it under the horse's chin so that he cannot bend his head towards his breast, and he cannot kick high enough to injure anything; if a good horse, and worth the trouble, a bit of bright steel may be fixed on his collar, with a claw to catch him under the chin; this will answer the purpose and look well. If a mare, part with her, or turn her to the stud; her foals may not kick when well brought up; if fillies, I fear, no matter what education they get, they will have the kick in them. Sometimes mares kick from ticklishness; it is a ticklish thing to deal with them, and I fear their daughters will be ticklish. Kicking, I am satisfied, is hereditary "in the female line." I had a mare that was dangerous to look at, she had such an ugly use of her hind legs, and by buckling a stick under her chin, fastened to the collar in the way I have described, I defied her. I defy any horse to kick so as to injure the vehicle or himself. This is certainly better than tying up one fore leg, as a horse could not trot upon three.

I had two fillies out of this mare, and they were both kickers. I know many instances of kicking being hereditary.—*Iroquois Rep.*

Animals for Fattening.

In my close identification with fat cattle for several years, I have always found that that the best animals have the most massive heads, most capacious chests, and the strongest spines. I have, therefore, evolved a few rules to go by in the purchase of lean ones, and scarcely with one exception have I found them to be fully applicable. The *head* of any of our bovine races ought to have the first consideration; this is the true index to the vital acumen, and even bodily construction, and will be found to foreshadow all good or bad that may be accomplished. Thus, an animal possessed of a broad, full, capacious skull, with strong, evenly-bent, deflective horns, will be found to have a thick neck at the base, wide thorax, and strong nervous system; while one with long, narrow, contracted skull, and puny, abruptly bent horns, will be characterized by weakness, wildness, and slowness to fatten. A small, dull, sunken eye betokens hardness of touch and inaptitude to fatten; and a bright, large, open eye *vice versa.—Agricultural Gazette.*

My Three Cow Dairy.—A correspondent of the *Country Gentleman* says: At the beginning of 1862, I made up my mind I would know just what three cows would do in 365 days. Here is the result—695 pounds of butter, besides selling 200 quarts of milk and 11 quarts of cream, and using all the milk and cream we wanted in a family of three persons, and raising two calves. I have done it all myself—no *Bridgets* or *Susans* to help in the least. Been very regular in milking, and kept my cows in the stable every night the year round.

Horse Trade of Chicago.—This point has shown superior advantages for the collection of horses for army use—nearly one hundred thousand having been purchased here since the war commenced. The average price paid for these horses has been $120, making the aggregate of $12,000,000 paid to the producers of the Northwest, at this point alone.

Since the first day of September last, Capt. Potter, U. S. A.. has purchased and shipped ten thousand five hundred cavalry horses. Five hundred of these horses were purchased at $119 75 per head and the balance at $120 per head, making an aggregate of $1,200,000 paid out in three months.

Salt and Cold Water for Swine.

It is not a common practice, we think, to give salt to swine occasionally, while every farmer would consider it a prime duty to offer it to his neat stock, horses and sheep, as often as once a week. To be sure, the swine get a little compared with the amount given to other animals. In proportion to their weight, why do they not need as much salt as the other stock on the farm? We find an article going the rounds of the papers upon the use of salt for fattening swine. The writer states that he selected two pairs of barrow hogs weighing 200 each. One pair received, with their daily allowance of food, two ounces of salt; the other, similarly fed, none. In the course of a week it was easily seen that the salted pair had a much stronger appetite than the others, and after a fortnight it was increased to two ounces apiece. After four months the weight of the salted hogs was 850 pounds, while that of the unsalted, five weeks later, reached only 800 pounds. The experiment was repeated with almost precisely the same results.

THE BEE-KEEPER.

Movable Comb Beehives.

ED. FARMER:—Please allow a few words in defence of the improved system of bee-keeping, by one who has no interest in this direction that requires the columns of your widely circulating journal for a puffing medium, yet has a great and increasing interest in this important branch of productive industry; and, who with the interests of the FARMER so much at heart, really deprecate the shut-down so decidedly laid upon the advocates of the different styles of hive, in the last volume, believing it fall as seemly to tell of the merits of a particular beehive, as of a certain reaper, or blood of sheep or swine.

Let those who have pecuniary interests to advertise, pay for their advertising; but is it not true that by inviting a free discussion of the merits of new inventions, which the people of the country so freely invest in and experiment with, their intrinsic value is the sooner made known, and the public are thereby saved much costly experience in testing ten thousand worse than useless patent traps? Is not this, in part, the mission of our much valued FARMER?

Be assured the wide-awake public will not hold you guiltless, if they find, at the close of another honey season, that through truant swarms, and worm-webbed stocks, their supply of sweet is but a tithe of a reasonable expectation, and their stocks for another year still further thinned by murderous suffocation for the major part of what they do get; when by a free discussion of this subject, the light disseminated may do away with the hap-hazard, come-and-go-luck style of bee-keeping.

It is high time that bee-keeping should take its rank among the sciences; and, as with other departments of stock-growing and domestic industry, be governed by established principles. Thanks to the labors of such men as Dzierzon, Huber, Langstroth, Quinby, and other devoted experimenters, the facts, in the nature, habits, and wants of the honey bee are too well established to warrant groping in the dark on the principles of successful culture.

One fundamental principle is the fixed character of the honey bee, in common with all the animal race, which gives uniformity in habits and necessities, so that the provisions and treatment suitable in one case, are applicable in others of a similar nature; hence a familiarity with their habits renders their culture simple indeed, compared with the superstitious notions which prevailed but recently, if not still in vogue occasionally.

It is upon these important facts, of *uniformity of architecture* and manner of breeding, in accordance with fixed principles, that any system of guides or frames must be based, and the value of such guides must rest here. All these devices must conform to this fixed character, and it is evident that in the great diversity of frame-hives, there must be great inconsistency somewhere, and, so far, great failures.

If in some frames the combs are built "crooked or serpentine, augur-shaped or crosswise," it argues truly against the character of the frames or the care of the apiarian, but no more against the system of movable comb hives, than an ill grown fruit tree against my favorite art of tree-growing.

Now, dear Editor, I trust you will open your columns once more to a full discussion of this subject, that such disconsolate experimenters as our friend at Dartford may get the light sought, and no longer go seeking, in a multiplicity of patent hives, for some self-running institution, "up to the theory of good talking vendors."

But about beehives—I really think there is no one branch of patent humbuggery in which there is so much *innocent* swindling, as in this direction, and for the simple reason that, with few exceptions, both buyer and seller are profoundly ignorant of the true principles of bee culture, and their hives correspondingly unadapted and pernicious. Hence "blind lead the blind," and if both do not fall into the ditch together, it is because the vendor has taken wings with his spoil.

I am happy to inform your readers in general, and Mr. S. in particular, that with a properly constructed hive, and a reasonable amount of intelligent manipulation, I have perfect control, so to speak, and have no difficulty in inducing the patient and industrious little workers to build "straight, uniform" combs, or sufficiently so for practical purposes.

My success has been most satisfactory with the movable comb hives, and unless your regular corresponding bee-men will "fall in" and show up the practical utility of their favorite hives, in the light of the now well known nature and habits of the bee, one who claims to be nothing but an amateur apiarian will, at the risk of "parroting," make public some details of experience, with reasons therefor. J. C. PLUMB.

LAKE SIDE NURSERIES, MADISON, Wis.

How to Conquer Belligerent Bees.

A correspondent sends us the following remedy for pugnacious bees. It would seem to be effective:

MESSRS. EDITORS:—In your issue of the 26th of September, you copy an extract from the *American Stock Journal*, entitled "Bees," giving a remedy to stop them from robbing each other of their honey, all of which may be very good in the absence of a better method. But having positive knowledge of a much quicker and simpler plan, I beg to lay it before your readers:

When it is discovered that two swarms of bees are at war with each other, by turning up the hive containing the attacking bees, thrusting a stick up into the honey and fracturing the comb, you will at once stop all further aggression, and set the bees repairing the damage done to their own empire, instead of trying to conquer another.—*G. B. Turrell, in Scientific American.*

In connection with the foregoing we give the article referred to by Mr. Turrell, as follows:

In September and October, bees are very apt to rob each other, and many families of them have been destroyed in this way. The remedy is to lower the hives down and give but one passage way, and that not over two inches long, for the strongest families, and to be contracted, according to the strength of families, down to a compass that will only admit a few bees to pass in and out at the same time. This is the *preventive* remedy. The populous hives, well filled with honey, will require but little protection, but those hives that have been left weak by too much swarming, or from any other cause, are in danger. Whenever an unusual bustle is noticed around a hive, with dead bees on the ground in front, and the occupants of the hive around in squads on the alighting board, with stranger bees held as prisoners, you may know there is danger. Numbers of bees will be slowly flying around on a level with the entrance, as if seeking for an unguarded passage, making a louder noise than usual. At twilight, when all other hives are quiet, bees will be seen to leave a robbed hive and fly away to their houses. This is the most sure test. In such cases, close the hive entirely for a day, but give the bees air. You may then open the passage way a very little, so as to allow a single bee to pass. Leave it thus for a day or two, when it may be enlarged, if no further trouble is apprehended.—*Stock Journal.*

THE POULTERER.

Don't let your Fowls get as old as Methuselah.

For obtaining the greatest amount of eggs, or for the production of the best average quantity of flesh, fowls should never be kept beyond the age of two years old. It is well settled that during the first year of her life a well fed hen will lay more eggs than ever afterwards. From the end of her second year she begins to fail as a breeder, and chickens usually raised from old hens' eggs are never so healthy, so vigorous, or otherwise so promising as are those hatched from the eggs of young birds, that is to say, those from one to two years of age.

Male birds are in their prime only down to the end of the second year, and should not be kept for propagation beyond that period of life. For ordinary breeding purposes a vigorous young male bird will serve advantageously twelve or fifteen hens, the former number being preferable as a rule.

The males should be changed every season from one flock of females to another, and no male bird should be permitted to run with the same hens during more than a single season under any circumstances.

For the producing of eggs only no male bird is necessary to be kept with the laying hens; and during the season of moulting it will be found of advantage, decidedly, to separate the cocks from the pullets altogether. These hints are offered for the consideration of those who desire to breed fowls systematically and to the best advantage in moderate quantities. Where large numbers of birds are kept, it is not absolutely necessary that these recommendations be altogether observed; but for the purposes of comparatively "good breeding," making no pretention to simply keeping up a purity of race, but rather for

the every-day purposes of the farmer, who is satisfied with fair profits, and who breeds for ordinary market, the hints proposed will be found generally advantageous. *Ag. Report.*

FOOD FOR FATTENING POULTRY.—The cheapest and most advantageous food to use for fattening every description of poultry is ground oats. These must not be confounded with oat meal, or with ordinary ground oats. The whole of the grain is ground to a fine powder; nothing of any kind is taken from it. When properly ground, one bushel of the meal will more effectually fatten poultry than a bushel and a half of any other meal. The greatest point in fattening poultry is to feed at daybreak.—*Ex.*

CARE OF HENS IN WINTER.—Farmers as a general rule neglect their hens in winter. They are left to pick up what they can find about the barnyard; if they get sufficient food, well; if not, no matter. This is cruel and decidedly unprofitable. If it will not pay to keep them in good condition, it will not pay to keep them at all. They should have a warm and clean place to roost in, and the farmer should see that they never suffer for lack of food. A little light grain or buckwheat, with a few boiled potatoes, turnips, mangel wurzel, or other succulent food will generally be paid for by the eggs laid during winter and in the spring fourfold. Hens starved during winter will not furnish many eggs the coming spring.—*Rural Annual.*

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

A Magnificent South American Cactus.

We have just received a few seeds of a remarkable Cactus, found in New Grenada. They were forwarded by Hon. A. A. Burton, U. S. Minister to that Republic, who will please accept our thanks for this and other like favors. The following is Judge B.'s description of the fruit:

PITAJAIE CACTUS—commonly called Pitahaya, (pronounced Pee-tah-i-yah.)

Bears a beautiful and excellent fruit about the size of a Northern Spy. Pink without, and a perfect Solferino within. Has much juice, and can, perhaps, be used for dyeing that difficult color.

It will require a temperature from 85° to 95°. Fahr., to mature its fruit.

A. A. BURTON.

The beautiful color, to which the Judge refers, is visible upon the white surface of the letter enclosing the seeds. This cactus is certainly worthy of attention, and we shall take care that the seeds so kindly forwarded have a good opportunity to prove themselves.

Flowering Shrubs.

There are so many ways by which a place may be cheaply adorned, and made to look as well, or even better, than some others in which a small fortune has been literally sunk—sunk to rise no more—that it is hard to select one as being pre-eminent. But we desire in this article more particularly to call attention to one of them, viz.: the employment of *Ornamental Shrubs.*

We have for a long time impressed on our friends the advantages of planting belts and borders of them thickly about their small places—and it is amusing to listen to the arguments persistently brought up in almost every case against the proposition. Our rhetoric has often succeeded where our logic failed; and many who were not convinced nevertheless allowed themselves to be persuaded into the experiment. Not in a single instance, that we remember, can any owners of such belts and masses of shrubbery be induced to break up the arrangement or abandon the idea.

The place looks larger; becomes more cheerful; affords blooming and fragrant flowers all the season through; and the "lawn"—that loved and cherished little green spot, for which, it would seem, alone, the proprietor and his family abandoned the conveniences of city life—appears to be actually increased in extent by the space the shrubbery has subtracted from it.

We admire borders of herbaceous plants, filled with flowers of every form and hue, and edged with its prim, straight belt of box edging,—privileged strips of ground, reserved from less refined uses to be the favored spot for hotbed-raised annuals, and plants which require other modes of yearly renewal,—geo-

metrical forms and ribbon beds, embroidered in green—Nature's emblems of human gold—filled with the choicest productions our greenhouses can furnish of the floral treasures of foreign climes,—these, one and all, give to every place a charm of which we would not by any means seek to deprive it. But the shrubbery is a permanent affair,—one of the "institutions,"—and not only a "once for all" operation, but one which, like money well invested, increases in value every day. From early spring to late in the fall, or early winter, some one or other of them, if judiciously selected, will offer you its floral tribute, and for the single spike or branch presented you this season, it wil prepare a tenfold increase the next. We know many persons who, perhaps four years ago, paid their trifle for *Weigelia rosea*, or *Pyrus japonica* with its handful of flowers, and who now could not be induced to part with them and their hundreds of blossoms for ten times their cost.

In planting shrubs in belts or masses, they should be set much thicker than they are intended to remain, in order to reap the advantage of an immediate effect. As they grow too thick, they can be easily transplanted to other places where they will be effective.—A. G. H. in *Gardener's Monthly*.

Rabbits Eating Fruit Trees.

From the *Valley Farmer* we take the following: Kill a rabbit and cut it in two pieces, and rub the bark of each young tree with it. The rabbit will not trouble these trees any more that season. The flesh side of the hide of the opossum is equally as good to rub the trees with. I have tried it and have not had a tree injured that was treated in this manner, while those that were left unrubbed were eaten by the rabbits.

Blood is also a safe, effectual and easy remedy to prevent rabbits from eating the bark off of young trees. Take two or three quarts of blood, and thoroughly mix it with about six of water in a bucket; then, with a short-handled whitewash brush, put it on. One stroke on each side of the tree is sufficient. One application is enough, without heavy rains occur during the winter; in that case it would be better to go over them a second time. An active man will wash nearly one thousand in a day.

Cultivation of Orchards.

We find the following statement of experience going the rounds of the papers, and credited to the *New England Farmer*. It was evidently written by some correspondent who meant better than he knew:

"In the spring of 1853 I purchased a village lot on which were a few fine apple trees, some of them six or eight inches in diameter. The ground had not been very well cultivated for a few years, yet the trees were healthy and productive. Wishing to make them grow rapidly and produce more abundantly, I spaded the ground under them thoroughly and very carefully. They bore well that year. The next spring I again tried spade culture, but I noticed that the earth under the trees was literally bound together by fine rootlets, and that a great number of them were broken at every shovelful that I turned up. I began to reflect on the utility of these fibrous roots. I thought them analogous to the minute veins, absorbents and capillaries of the human system, every one of which conveyed a certain portion of nutriment to the body or to some organ of it; hence I concluded that the process of cultivation must be injurious.

"My fears were realized. In 1855, two of the best trees died; a great many trees died that year in various parts of the country, and the cause was attributed to the weather. I have no doubt that a severe winter hastened the decay, but in this region, the best cultivated orchards were most severely injured. I can mention many instances in further proof of my position, if necessary, but defer it for the present."

Such cultivation as the writer of the above gave to his orchard should be expected to imperil the life of any fruit tree. Trench and surface culture are two different things. The one might ruin; the other is pretty sure to improve the health and vigor of the orchard.

From Proceedings of Ohio Pomological Soc. at Columbus, O., Feb., 1863.

The Fink Apple.

FINK.—Specimens by A. B. Butler, Columbus, and Mr. Wood, of Jefferson Co.,—the latter along with specimens of the *Tewksbury Winter Blush*, showing considerable resemblance between the two, but not identity, as supposed when first presented to the Society. Mr. Bateham said there was more difference in the wood and growth of the trees than in the fruit. The Fink was the better grower,

and larger and rounder fruit; quality much the same; both remarkably long keepers; of finer texture and more juicy than any apple within his knowledge, after keeping ten or twelve months.

Mr. Butler said he considered the Fink highly valuable as a cider apple, as well as a long keeper; it was a great bearer, and made cider that was pronounced equal to that of the Virginia Crab.

Choice of a Soil and Location for a Fruit Orchard.

As the period will soon arrive when those who desire to make due preparation for setting out a fruit orchard will have to take the preliminary steps for carrying out so laudable a purpose, it may not be regarded as inopportune if we point out some facts which ought to govern them in the choice of a site. It must be borne in mind also, that the several kinds of fruit trees flourish best in soils that differ very widely from each other, and that any mistake in this matter, such, for instance, as planting the plum or the pear in a sandy soil, or the peach in a stiff clay, or even a heavy loam, will inevitably lead to certain disappointment. With a view to a correct appreciation of what ought to be done in planting out an orchard, we have taken the pains to collate and condense from the best authorities on the subject, the following summary of conditions that should be observed:

In the first place, then, as to location. That should invariably be on the uplands, for it is indispensable that the subsoil should be dry, and wherever the land is at all wet, resort must be had to underdraining. The best soil for the apple is a strong loam, liberally limed and manured.

The pear flourishes best in a stiff soil, with a large admixture of clay, although it will do well in almost any soil that is not too sandy, but care should be taken not to enrich the soil too highly, or the rapid growth of wood will be at the expense of perfect fruit, and will also predispose it to fire blight. If dwarf pears are planted, those being grafted upon quince stocks, a cool situation and a damp clayey soil is to be preferred.

With regard to the plum, the more compact the soil the better the tree will prosper, and there is this further advantage in choosing a heavy clay for this fruit—it may be tramped firm about the stem, and thus, to a certain extent, prevent, by the closeness of its texture, the harboring of the curculio. It is owing to this cause that the plum succeeds so well in places that are constantly trodden by cattle, and in the yards of city dwellings.

The cherry succeeds well only in warm dry situations, and in sandy, gravelly loams. The peach also prefers a sandy or gravelly soil, and one that is tolerably poor rather than a soil in a high state of fertility.

With these guides before him, any of our readers can judge what soil is best for him to choose, taking into consideration the kind of fruit he desires to cultivate, and of course with the reservation that the nature of his land admits of a choice in the matter.—*Rural Register.*

Two Roses.

We have the following Hybrid Perpetual Roses in cultivation, and they have given ample satisfaction, and are much admired by our friends.

Jacques Lafitte.—"Rosy carmine, edges light, large, full and sweet."

Geant des Battailles, (Giant of Battles).—"The most popular of all this class of roses; brilliant, fiery crimson, fading to purple; habit dwarf, but vigorous and free bloomer; unsurpassed by any of the new Roses."

Our practice is to lay them down in the fall. Make a slight mound at the base of the canes with a spadeful or two of earth, and bend down the canes and cover with about two inches of mellow earth.

We think even the hardy roses bettered by protection in winter, especially in Wisconsin.

L. L. FAIRCHILD.

ROLLING PRAIRIE, Dec. 15, 1863.

Vitality of Seeds.

The following list furnished by the late Mr. Loudon shows the greatest age at which some of our common garden seeds germinate freely; and this result of experience is quite concurrent with our knowledge of their chemical constitution:

One year—peas, beans, kidney beans, carrot, parsnip, oraches, herbpatience, rhubarb, elm, poplar and willow.

Two years—radish, salsify, scorzonera, purslane, the alliums, cardoon, rampion, alisander, love-apple, capsicum, egg plant.

Three years—Sea kale, artichoke, lettuce, marigold, rue, rosemary.

Four years—Brassicas, skirret, spinach, asparagus, endive, mustard, tarragon, borage.

Five and six years—Burnet, sorrel, parsley, dill, fennel, chervil, hyssop.

Ten years—Beet, celery, pompion, cucumber and melon.

Now, in this list generally, as already observed, those with the most nitrogenous mat-

ters among their component parts are the first to decompose, and, consequently, lose their vitality; and those with the greatest amount of starch and lignin, or more carbonaceous constituents, retain their germinating power the longest, and for the evident reason, that such are not prone to decay.—*Cottage Garden.*

MECHANICAL AND COMMERCIAL.

Comstock's Rotary Digger.

We have noticed several favorable accounts of the trials of this ingenious machine at the Illinois State Fair last fall. A portion of arable land, on the Fair grounds, was set apart for the experiments, and the trials were witnessed by great numbers of people. It was drawn by two horses (though the opinion seemed to be entertained by some that four should have been used), and a strip of soil three feet wide, was thoroughly dug up to the depth of eight inches, at one *through.*

We are glad to see these favorable reports, and at our next State Fair shall hope to see for ourself. Get well ready, friend Comstock, and your Digger shall have a complete and impartial trial, in the presence of the multitudes who will then be on hand.

Imports and Exports.

Notwithstanding the depression of the cotton trade and cotton manufacture, England seems to rub on very well. It is announced, with allowable exultation, that England is doing "more and more business yearly;" that the month of July, 1852, was a better month for English trade and commerce than July, 1861, and that last July was a better month than July, 1862. As a particular example, the month of June is taken. In that month England purchased foreign goods to the value of $82,500,000, or thereabouts, and sold goods of her own to the value of $57,500,000. The foreign articles purchased by England, in that one month, consisted of raw materials for the use of British manufacturers, and provisions for the consumption of her people. There was expended $20,000,000 for cotton, $7,500,000 for wool, $2,500,000 for flax, and $2,500,000 for silk. For guano, indigo and oils there was paid $2,500,000. On the other hand, England paid, last June, $5,000,000 for corn (wheat), $5,000,000 for grain of various kinds, $5,000,000 for miscellaneous provisions and wine, $7.500,000 for sugar, $2,500,000 for coffee, and $3,750,000 for tea. On the other hand, England sold cottons to the value of $20,000,000; woollens, linens and worsted (including haberdashery), to the value of $15,000,000, about equally divided among the three classes, and metals, in various shapes, to the value of $12,500,000.

—The shipments of petroleum from America to England amounted, during the past year, to over 10,000,000 gallons.

All the imported articles, with the exception of the cereal products, are what England does not produce within her own realm, and, from habitude of consumptien, cannot now dispense with. In the United Kingdom, it is affirmed, sufficient grain could be raised to supply all the population with bread, but this would turn into arable most of the land now used for grazing purposes, and in some places tillage does not pay as well as cattle-raising. For the most part, England has to purchase foreign grain. Out of the $30,000,000 which she paid for provisions in last June, two-thirds went for commodities not produceable at home. Grain alone, in that month, cost $10,000,000, the harvest of 1861 not having been good, and the stock low. The crop of 1863 is said to have bee so good that it is worth $100,000,000 more than the crop of 1862. Uusually six and a half million quarters* make a good harvest; it will be eight millions this year. England only buys what she cannot do without and has not produced.

Cotton, linen and woollen manufactures make up two-thirds of the whole British trade. England exchanges clothing, (at an enormous profit), with other nations for food and raw materials, and the difference between the cost makes the profit which is her wealth. From America she gets only corn, cotton now being

* An English quarter is equal to 8 American bushels.

ne where, and wine, tea and coffee not being exported from America. Last June, the greatest import of grain into England was not from America; Prussia sent more, though much flour was received from America. Our exports to England have much decreased; not proportionately so our imports; and this, making the balance of trade against the United States, may, and probably will, cause great trouble ere long. If the value of what we receive exceeds the value of what we send, we must pay the balance in gold, which this very necessity will tend to keep at a high premium.

In the first six months of 1861, we sold cotton to England to the value of $100,000,000, and grain and flour to the value of $25,000,000. In the first six months of 1861, the amount of our exports to England, on these two accounts had diminished less than $15,000,000 for corn, and less than $350,000 for cotton. We repeat, our importations have not declined in anything like the rates of the decreased value of our exports Still, we go on buying articles that we can either wholly dispense with or produce by our own ingenuity.

A man with a large income can afford to live "at a bountiful old rate." But if this income be very seriously diminished, if it be reduced to one-eighth of its original amount, the man will be mad if he continue in anything like his original expenditure. The result must be misery, involvement, ruin. We should not disdain taking a leaf out of our rival's book. We should follow the example of England, and import nothing that we can produce at home. Already we are dispensing with the heavier articles of iron work, though we continue to get cutlery from Sheffield. In woollens, linens, worsteds, and haberdashery we are capable of producing everything, and of excellent quality, necessary for the ordinary consumption, even for the luxury of life. Would to God that among the patriotic and true-hearted women of this great Republic, and their name is Legion, there could be once awakened a determination not to wear any article manufactured in a foreign country! Our customs' duties might suffer, but the industry and the enterprise, as well as the capital and profits of the country would be vastly augmented. A true woman, who resolved to carry this resolve into practice, would surely be as comely in a neat cotton dress or a muslin de laine made in her own country, as in a gossamer robe from Manchester, a moire antique from Lyons, or a velvet from the looms of Genoa or Florence. The beauty which seeks adornment from abroad is a beauty self-distrustful of its own reality. A silken robe, an ermine-trimmed mantle, or a fifty dollar bonnet do not augment the natural charms of youth and beauty. The fair sex ought to know this.

Until the balance of trade be in favor of this country, which cannot be until our imports are of less value than our exports, there will be a continuous drain of gold to pay foreign countries for articles which our luxury sighs for, but for which neither our necessity nor our comfort has any occasion. In the present crisis, three principles should be predominant—Patriotism, Economy, and Protection.—*Forney's War Press.*

From the Bay City Press.

The Water Power of Fox River.

In order to give an accurate idea of the water power of the Fox, it will be necessary to introduce a few technical terms of which a short explanation will be given. In estimating the effect of any force applied to a machine, it is customary to express the effect produced in a definite number of *horse powers;* this term, *horse power*, is the name of an arbitrary standard used by engineers and others to compare the relative value of different forces and machines.

A *horse power* is a force capable of raising 33,000 lbs. one foot in one minute.

It is evident that all the water supplied to a wheel for the purpose of driving machinery cannot produce a useful effect, some of it being necessary to overcome friction, &c., and some being wasted. The amount which produces useful effects gives what is called the *effective horse power* of the machine; this

amount varies with different kinds of wheels, and with the perfection of the machinery; under the most favorable circumstances it has rarely been made to exceed 80 per cent. of the whole water expended. In the calculations given below, the effective power has been estimated at 68 per cent. of the whole, which may be assumed as a fair average for ordinary machinery.

The discharge of the Fox river, at an ordinary stage of water, is about four millions of gallons, or 550,000 cubic feet per minute. It requires about 60,000 cubic feet of water to fill one of the locks, and generally a lock can be filled in about three minutes; so that it would require four per cent. of the whole discharge of the river to keep a lock constantly full and discharging itself. We are perfectly safe, therefore, in allowing that 25 per cent of all the water is more than amply sufficient for the purposes of navigation.

With these data the following table has been calculated, in which the first column shows the effective power at each point, and the second the number of bushels of wheat that can be ground in 12 hours:

	Effective power.	*Bu. in 12 h'rs.*
Neenah and Menasha	5 900	82.600
Appleton	23.600	330,400
Cedar Rapids	5 310	74 3 0
Little Chute	21,830	305 760
Kaukauna	30,080	429.500
Rapid Croche	3,835	53.700
Little Kaukauna	4.425	62.000
Depere	4,425	62.000
Total	100,005	1,400,200

The wheat crop of Wisconsin for the year 1860 amounted to 27,000,000 of bushels; so that the water power of the Fox is sufficient to flour the whole crop of the State in a little over three weeks, working twelve hours a day.

The familiar application of the manufacturing of flour has been made use of in order to give some tangible idea of the immense, and as yet undeveloped, capacity of the Fox River. The Fox river has many characteristics which combine to make it one of the most reliable and valuable water powers in the world. Being the outlet of Lake Winnebago, a sheet of navigable water covering an area of more than 175 square miles, and having no tributaries of any comparative magnitude, it is entirely exempt from those freshets and other fluctuations, which make the water powers of other streams, having even greater capacity, of so little value. The distance from Lake Winnebago to the mouth of the river is about thirty-eight miles; and along this distance are distributed the various rapids whose names are given in the table above. The banks of the stream are, in general, high and bold, but at each one of the points named above, there is a sufficiently large tract of low, level land, for all the manufactories that could be supplied with water from the river. The river has been rendered navigable for steamboats and vessels of 200 tons burthen, drawing three feet of water, by means of locks and dams, so that all the water powers lie directly upon navigable water, and vessels can receive and discharge their cargoes at the manufactories themselves.

The outlet of the river is at the port of Green Bay, the best harbor on Lake Michigan and one of the best on the Lakes. Nature could do no more to make the stream perfectly suited to the use for which it is destined, and it only remains for us to take advantage of the great opportunities thus thrown in our way.

J. Kip. Anderson.

Grain Elevators.—Numerous strikes among laborers engaged in handling grain, one of which occurred at Buffalo a short time since, have had the effect to bring grain elevators into use, and thereby superceding manual labor by steam power The first floating elevator was put in operation in Buffalo, less than two years since, and there are now in that city eight floating, beside ten stationary elevators. The quickest time made in loading a vessel was in the case of the Great West, at Chicago. Her cargo was 82,000 bushels, and it was loadin two and a half hours, through three scuttles. The first 24,000 bushels was put in in one hour and fifty minutes—quick work indeed. It seems almost incredible.—*Ex.*

☞ Nineveh was 14 miles long, 8 wide, and 46 miles round, with a wall 100 feet high, and thick enough for three chariots abreast. Babylon was 50 miles within the walls, which were 75 feet thick and 100 high, with 100 brazen gates.

SCIENCE, ART, STATISTICS.

Meteorology for 1863.

Meteorlogical observations for 1863, at Milwaukee, Wisconsin—Latitude 43° 3' North; Longitude 87° 56' West; elevation above the sea, 593 feet—by I. A. Lapham:

Month.	Thermometer. Max.	Min.	Mean	Percentage of cloudiness.	Barometer reduced to 32° Fahr. Max.	Min.	Mean.
January	51	7	29.76	63	29.71	28.81	29 33
February	47	—12	26.88	68	29 89	28 81	29.48
March	48	11	31.42	55	29 80	28 97	29.39
April	67	22	44 95	39	29 80	28.77	29 39
May	84	32	55.55	52	29 60	28 87	29 33
June	90	43	63.70	33	29.81	28 94	29 37
July	90	44	68.55	39	29 68	29 16	29.37
August	91	41	69.00	41	29 69	28.96	29.38
September	87	31	59.42	34	29.76	28.99	29.45
October	66	28	43.45	58	29 97	28 74	29 40
November	59	5	36.81	57	29 88	28 84	29.35
December	57	—2	29.16	64	29.85	28 61	29 41
Year	91	—12	45 55	50	29.97	28.61	29.39

Month.	Vapor, Force.	Saturation.	Rain and Melted Snow Inches.
January	0 133	74 2	3.33
February	.111	70 5	1.85
March	.125	70.3	2.48
April	.192	68.4	1·04
May	302	68.3	5.21
June	.3·5	64.5	0.79
July	.490	70.7	2.41
August	.522	71.9	2 12
September	.432	69.7	1 02
October	.222	78.9	2.97
November	.160	70.0	3 51
December	.180	76 4	4.57
Year	.267	70.7	31.80

In addition to the observations, of which the above is only a brief abstract, a complete autographic record of the wind, showing its exact course and velocity at all times, was made by Burnell's Anemograph, (wind-writer, and sent to Col. Graham, to be used in determining the character and effects of storms, &c. on the Great Lakes. Copies of the observations were sent monthly to the Commissioner of Agriculture at Washington, and used by him in making up his monthly reports on the condition of the crops.

[Observations of this character, though they doubtless appear to many quite unimportant, are, nevertheless, of very great practical value, and entitle those who so carefully and unfailingly, for years, make and report them, to the gratitude of the public. What is there of more practical value than a mastery of the great problems of climate, upon

Gen. Mitchell's Scientific Achievements.

Maj. Gen. O. M. Mitchell did such splendid work in Tennessee and Alabama, while employed in that Department of the army, and afterwards at Beaufort, until his sad and sudden death by yellow fever, that the country, for the time, was in danger of forgetting that his scientific achievements had already won for him an acknowledged place among the most distinguished savans of the age. Among his inventions and discoveries the following are especially worthy of notice:

1. The application of electro magnetism to the observation of right ascension of stars, and perfecting this new mode of observation until it has, under some modifications, been adopted in the principal observatories of the world. In Europe it is known as the American method.
2. Inventing a method of determining differences of declination with great accuracy and greater rapidity than had heretofore been done. This, for want of a proper instrument, could not be perfected in the Cincinnati Observatory, but was applied to the meridian circle at the Dudley Observatory, and was in use at the time when he was called to the defence of his country in her armies.
3. Measurement of the double stars south of the equator in Struve's catalogue.
4. Discovery of Antares being a double star.

EDUCATIONAL.

Agricultural Colleges of the United States.

AS SEEN BY THE EDITOR.

PENNSYLVANIA STATE AGRICULTURAL COLLEGE.

Last in order of visitation, but second to none in prosperity, and first of all in the brightness of its promise.

Leaving Philadelphia in the evening, we were, early next morning, set off at Tyrone, junction of the Pa. Cent. R.R. and Bald Eagle Branch of the Central. A comfortable breakfast at a shabby hotel, and at nine o'clock *en route* for the College, via rail, to Julian Furnace. Scenery mountainous and picturesque, suggestive of the Lower Alps. Providence so arranged it that, by climbing Bald Eagle Ridge to the summit, we could get a ride down the

Edifice. We might have gone on to Bellefontaine, from which point there is a good stage road; or we might have stopped at Lewiston, before reaching Tyrone, and have taken the morning stage to the College—distance about 25 miles. But stages were long since out of fashion, even in Wisconsin, and we were not going back to them in the old Keystone State, whose age is beginning to be reckoned by centuries.

Up the mountain, by the winding, stony path, stopping only to admire the grandeur of the scenery. No wonder the dwellers in the mountains scorn the allurements of the monotonous plain. God is more visibly in the mountains, and the soul of man is more naturally controlled by the mysterious power of that felt Presence.

The descent was easier than the ascent, thanks to the clever Methodist clergyman whose team carried us on. Cultivated farms, with poor fences and uninviting dwellings line the winding, undulating way. Over another ridge, slight, however, and clothed with luxuriant crops of wheat and grass; through a beautiful grove of natural timber, and, all suddenly, appeared the imposing edifice of the Agricultural College. Up to this moment I had been all the while wondering why the institution should have been hid away in so inaccessible a place. I wondered no longer. In the first place, it is at the geographical centre of the State. This is well, if nothing more important must be sacrificed to that centrality. In the next place, it is really quite accessible by the established routes, and will every year derive new advantages, in this respect, from railroads constructing and projected. And thirdly, the magnificent scenery, in the midst of which it stands, is, of itself, enough to have warranted the location. The Penn Valley, in which it is situated, and which is about ten miles wide at that point, is one of the most beautiful in the world. On the northwest, at a distance of some six miles, lies the long range of the Bald Eagle mountains, already referred to; at the southeast is seen the wavy line of the crest of the Seven Mountains; at the northeast, and three or four miles distant, rises Nittany Mountain; the Penn Valley stretches away almost as far as the eye can reach, to the southwest; while in the dim distance are just visible the blue tops of the Alleghanies. "Now I understand" said I, "why this place was chosen. There is evidently a good variety of soils on the large and handsome farm; this spot is the centre of Centre county; and these sublime surroundings are so well adapted to aid the institution in the development of the intellectual powers of its pupils, and in the growth of a sturdy virtue, such as the future farmers of Pennsylvania must needs have."

The College Building is a substantial stone structure, 284 feet long, and five stories high, exclusive of a high and well lighted basement. The central portion is 180 feet deep; the two extremities, each 81 feet deep; the said wings being connected with the central part by "curtains" whose front line of 48 feet is ten feet in the rear of the front line of the centre and wings, and whose depth is 56 feet. According to the details kindly furnished us, "the entire building embraces 165 dormitories, each 10x18 feet, and 9 to 11 feet high; a library room 24x46; a geological and mineralogical museum, 24x46; an anatomical museum, 26x36; a museum of agricultural productions, 24x20; a chemical laboratory for beginners, in the basement, 24x56, and two laboratories on the first story, each 20x40, for more advanced students; two lecture rooms, each 26x34; four recitation rooms, each 20x34; and several smaller rooms for apparatus for special scientific investigations, and for store rooms; also a large room 80x28 for a chapel, and two rooms, each 56x20, for society halls; a space 80x48, on the first floor, appropriated to culinary and dining uses; two reception parlors, and commodious apartments for one professor with his family, and for the family of the steward."

The entire building is to be warmed, when all the arrangements are complete, by hot air

furnaces, of which there will be sixteen of the largest size; and the ventilation is effected by flues extending from each room to the top of the building. Upon the top is a neat cupola, from which the view of the surrounding country is most magnificent.

The other buildings on the premises include two frame dwellings, one for one of the professors, and the other for employees of the institution; a wash house; a carpenter shop and tool house; a blacksmith shop; a large, double-deck barn, with the modern improvements and accompaniments; a piggery, granaries, &c.

The improvements on the farm are as yet but little in advance of what they were at the date of purchase, owing to the necessary concentration of effort and capital for the completion of the edifice. The lands are being properly partitioned with reference to systematic culture, however, orchards and nurseries are being planted, and approved breeds of stock are being introduced.

Instruction was given, during the past year, to 142 students; 24 of this number being embraced in the Preparatory Department, 22 in the 4th Class, 48 in the 3d, 29 in the 2d, 8 in the Graduating Class, and 8 in what might be denominated the class of Resident Graduates. The number would have been much larger, it is believed, but for those advances of the Southern army into Pennsylvania which called into the service of the State so many of her patrictic young men.

The courses of study are:

1. The Full Course; embracing four years, and including the branches ordinarily taught in colleges, except the classics.

2. The Partial Scientific and Practical Course; which differs from the first only in that it omits the higher mathematical branches, and includes a wider range of natural science.

3. The Practical Course; designed for those persons, young or old, who, while they are unable to take a thorough course of instruction, are, nevertheless, anxious to avail themselves of the fruits of scientific investigation for the better management of the farms of which they may have charge.

4. The Course for Graduates; intended for the accommodation of graduates of this and other institutions who may wish to continue their studies, whether in the laboratory or in any other department, beyond the ordinary Full Course.

The Faculty consists of five professors, two assistants in Analytical Chemistry, and a teacher for the Elementary Department. There are also Superintendents of the Farm, the Nursery, the Garden, the mechanical department, and of the culinary department.

The President, Dr. Evan Pugh, has the reputation of being a scholarly gentleman of energy and zeal in the cause for the promotion of which the institution was established, and large results are anticipated from his management. We regret that his absence from the county, on the day of our visit, prevented an interview that had been much desired on our part. Prof. Wilson, Vice President, extended to us a warm welcome, however, and kindly gave us all desired information.

The ultimate control of this College is vested in a Board of Trustees, thirteen in number; nine of them being elected members and the remaining four members *ex officio*. The elections are determined by the Executive Committee of the State Agricultural Society, and three delegates from each of the County Agricultural Societies; three members being elected every year, and each member holding office for at least three years. The ex-officios are the Governor and Secretary of State, the President of the institution, and the President of the State Agricultural Society.

The financial condition of the Pennsylvania College of Agriculture is, perhaps, better than that of any similar institution in this country. Begun as the Farmers' High School of Pennsylvania, and relying, at first, upon voluntary contributions, it has had, since 1855, the date of incorporation, severe trials to pass through. The State was, at last, induced to

conditionally appropriate $50,000 in aid of the enterprise; and in 1859, while the buildings were still incomplete, the school opened with 69 students on the first day; the number rapidly rising to 119. The condition referred to was, that a like amount should be raised by subscription, which was only accomplished after much delay and most provoking disappointments.

In 1861, the State again appropriated the sum of $50,000, and this time without imposing conditions as before. A farm and building site were generously donated by Gen. James Irvin, and other two hundred acres have since been added. The scrip, authorized to be issued by the Interior Department, equivalent to 780,000 acres of Government land, has lately been awarded to this institution. So that now it has the promise of a total of property, including the congressional endowment, represented by about $1,150,000.

With such a foundation and such a beginning, and with so great and wealthy a State, moreover, to further sustain it, there would seem to be full warrant for the prediction that within a short period the Pennsylvania Agricultural College will have taken high rank among the leading Industrial Colleges of the world.

THE HOME.

THE BABY SOUL.

The baby new to earth and sky,
  What time his tender palm is pressed
  Against the circle of the breast,
Has never thought that "this is I."

But as he grows he gathers much,
  And learns the use of "I" and "me,"
  And finds "I am not what I see,
And other than the things I touch."

So rounds he to a separate mind
  From whence clear memory may begin,
  As through the frame that binds him in
His isolation grows defined.

This use may lie in blood and breath
  Which else were fruitless of their due,
  Had man to learn himself anew
Beyond the second birth of Death.

—*In Memoriam.*

"Slovenly Husbands."

Are farmers more slovenly than other men who work in the dirt? It may be they are, but I don't believe it. No man who has used the gifts God has given him, and he isn't worthy the name if he hasn't, would be so utterly regardless of the feelings of his wife as to enter the parlor where guests are assembled, in the same garb he wore in the barnyard.

Do farmers soil their clothes more than masons and painters? I think not. It is a different kind of dirt, but it is dirt, nevertheless; and I know many in all three professions whom I call model husbands, as far as neatness is concerned. No one wishes to see them "dressed up while about their work." It wouldn't be sensible for them to do so. No sane woman would think of donning a silk dress before entering the kitchen for the purpose of making pastries; but in a neatly fitting calico dress, protected by a large bib apron, with her sleeves well rolled up, she does the honors of the kitchen. And when these duties have been duly attended to, a change of attire makes, in some eyes, a very different person; but I see the same cheerful countenance that was presiding over affairs in the kitchen in the early part of the day.

It is just so with the model husbands I know. "Of course," when at work they are clothed in working habiliments; but on returning to the house for dinner or supper, in a small room prepared for the purpose, they remove those unsightly boots, and slip their feet into slippers which their amiable wives or lovely daughters have prepared; and, after doffing the blue suit of frock and overalls, and performing the necessary ablutions, with hair neatly brushed, a linen coat donned, they are quite as presentable as if they had just come from the office or counting-room.

Do you say this is an Eastern picture? It is, but one which, I am happy to say, I have also seen in the West.

Slovenly husbands, who try your wife's patience and mortify her so often, do you say

you can't waste so much time? Time is precious, I know; but you will be more than compensated for the little you lose, by her happiness, saying nothing of your own. Try it a while. Have some place in the wood-house—ah! I forgot that the wood-house of a Western farmhouse is wholly out of doors—well, have *some* place where you can make yourself presentable before sitting down to dinner; but, for pity's sake, don't take the kitchen, flavoring the food with the aroma of the barnyard, and seasoning it with the perfumed dust from your clothes. I prefer pepper and salt. My friend, did you woo and win your wife in that unwholesome garb? I think not.

Now, slatternly wife, a word, if you please, with you. Are you always careful of your appearance when in your husband's presence? Did he ever see you before your marriage with frowzled hair and soiled dress, with the hooks half off and then pinned over? Did he win you in such a costume? If so, then I don't pity him now. But I believe you both were scrupulously neat in those days when the court sat often, and sometimes held to a late hour. Are you as careful of the display of slack habits and irritabilities of temper now as when in blushing maidenhood? Did you say "it makes no difference now, for he is mine?" Yes, he is yours, bound by the laws of God and man; but do you keep him by your side with the silken cords of love? Did you, soon after you entered the marriage relation, when you first detected those slovenly habits in your liege lord, gently suggest the propriety of a change of clothing, and delicately place the garments in his way, and also set him a pattern of cleanliness yourself?

Mother, how are you training your sons and your daughters? To habits like their father's to annoy and render unhappy some other being in the future? Or are you endeavoring to make of them what you wish their father was? Do you say you can do nothing with such an example before them? Who moulds the child, if not the mother? Often, very often, have I been pained at the training some children receive. I do not mean those who grow up wild, without any discipline whatever, unless a knock on one side and a corresponding one on the other, to produce an equilibrium, be dignified with that name; but I refer to what is given by the self-styled devoted mother.

Is it devotion in a mother to wait upon a child who is much more ready of limb than she, picking up playthings after they have been scattered on the floor, putting the room to rights which has been disordered, placing the chairs, which have been huddled together for the purpose of playing meeting or railroad, back in their respective places? Sonny doesn't want to put things away, and mamma can do it; she'd rather than to hurt sonny's feelings. The child undresses at night, and every article of clothing is in a separate place, or else left, just as taken off, on the floor. Who shall pick them up and place them ready for the morning? Sonny? Ah no! Sonny d esn't want to, and mamma can do it just as well.

Mother, are you training your child to habits of order and neatness? Order is Heaven's first law, and if the grand principle is acquired in youth, 'tis lasting, for nature emphatically teaches that as "the twig is bent, the tree is inclined." Are you fitting Sonny for a careful and agreeable husband, and Sissy to be a model wife? Stop and think.

SALLY SPINSTER.

Marriage.

Marriage is to a woman at once the saddest and happiest event of her life; it is the promise of future bliss raised on the death of the present enjoyment. She quits her home, her parents, her companions, her amusements—everything on which she has hitherto depended for comfort, for affection, for kindness and for pleasure.

Her parents, by whose advice she had dared to impart the very embryo thought and feeling; her brother who has played with her, by turns the counsellor and the counselled; and the younger children, to whom she has hitherto been the mother and playmate,—all are to be left at one fell stroke, every former tie is loosened, the spring of every action is changed, and she flies with joy into the untrodden paths before her. Buoyed up by the confidence

of requited love, she bids a fond and grateful adieu to the life that is past, and turns with excited hopes and joyous anticipation to the happiness to come. Then woe to the man who blights such fair hopes! who can treacherously lure such a heart from its peaceful enjoyment and the watchful protection of home—who can, coward-like, break the illusions which have won her and destroy the confidence which love had inspired.—*Ex.*

The Love of Home.

The following noble sentiments were uttered by Daniel Webster. They are, indeed, pearls of the rarest value.

"It is only shallow-minded pretenders who make either distinguished origin a matter of personal merit, or obscure origin a matter of personal reproach. A man who is not ashamed of himself, need not be ashamed of his early condition. It did happen to me to be born in a log cabin, raised among the snow drifts of New Hampshire, at a period so early that when the smoke first rose from its rude chimney and curled over the frozen hills, there was no similar evidence of a white man's habitation between it and the settlements on the rivers of Canada. Its remains still exist. I make it an annual visit. I carry my children to it, to teach them the hardships endured by the generation before them. I love to dwell on the tender recollections, the kindred ties, the early affections, and the narration and incidents which mingle with all I know of this primitive family abode; I weep to think that none of those who inhabited it are now among the living; and if ever I fail in affectionate veneration for him who raised it, and defended it against savage violence and destruction, cherished all domestic comforts beneath its roof, and, through the fire and blood of seven years' revolutionary war, shrunk from no toil, no sacrifice to serve his country, and to raise his children to a condition better than his own, may my name and the name of my posterity be blotted from the memory of mankind."

☞ Suspicion is the palsy of the heart; fear is a chain of ice upon the tongue. Half words are worse than silence; and either is death to conversation. A man to be genuine to himself, must believe and be believed, must trust and be trusted. The scowl of a doubt quenches the charm of conversation as quickly as the shadow of a hawk does the song of a bird.

☞ Babies are the tyrants of the world. The emperor must tread softly; baby sleeps. Mozart must hush his nascent requiem; baby sleeps. Phidias must drop his hammer and chisel; baby sleeps. Demosthenes, be dumb; baby sleeps.

THE GOLDEN SUNSET.

The golden sea its mirror spreads
  Beneath the golden skies.
And but a narrow strip between
  Of land and shadow lies.

The cloudlike rock, the rocklike clouds,
  Dissolved in glory, float;
And midway of the radiant flood
  Hangs silently the boat.

The sea is but another sky.
  The sky a sea as well;
And which is earth, and which the heavens,
  The eye can scarcely tell.

So when from us life's evening's hour,
  Soft fading shall descend,
May glory, born of earth and heaven,
  The earth and heaven blend. LONGFELLOW.

HEALTH AND DISEASE.

How we Abuse our Stomachs.

No other civilized people, probably, are accustomed to abuse their stomachs so badly as we Americans of the United States. Our food is often badly chosen, still more frequently spoiled in cooking, and always eaten in utter disregard of all dietetic rules. We eat far too much flesh-meat, especially pork, in its most objectionable form, and too little bread, vegetables and fruits. Our hot, soda-raised biscuits, hot griddle-cakes, saturated with butter, and the hot, black, intolerable coffee, which form the staple of our breakfast, are, in the way in which they are taken, among the most deleterious articles ever put upon a table.

Pies are another American abomination, and have no small share in our ill health to answer for. The mince pie, as it is generally made, is the climax of abominations. Some describe it as "very white and indigestible at the top, very moist and indigestible at the bottom, and untold horrors in the middle." Even our bread is unwholesome. It is made of the finest of fine flour, and fermented until its natural sweetness and a large portion of its nutritive elements are destroyed, or raised with those poisonous chemicals, soda and cream of tartar. In either case it is unfit to be eaten. The rich cakes which our good housekeepers deem so indispensable, are still worse, and so on.

Now, add to our badly chosen dishes and objectionable cookery, the rapid eating and

imperfect mastication, and the continually interrupted digestion which our intense and feverish life necessitates, and we have a complication of abuse which would, one must believe, have long since destroyed the vital stamina of any people not originally endowed with marvellous physical powers.—*Hints towards Physical Perfection.*

DOMESTIC ECONOMY.

A Talk in the Kitchen—About Kitchens.

BY MRS. HOYT.

Most women regard cooking as the merest drudgery, a sort of menial service to be endured when it cannot be avoided. And who wonders? Besides the low estimate that is put upon cooking as an art, the room where the family cook must spend much of her time is the most uninviting place in the house, and the wages paid when an employee is charged with its performance rate lower than the compensation for any other kind of labor. This tells the whole story.

It was in my thought to describe one or two kitchens, but I will save myself the trouble by asking you to go and look at your own. Your own! Whom am I talking to? My honest meaning is, the individual who owns the kitchen, the man who built the house, and who will sell it, when he sees fit, and build another. The kitchen I am talking about belongs to you, and if you don't live in a shanty, if you pretend to have apartments for the various uses of household comfort and decency, I am safe; there being a thousand chances to one against it, that the place where your breakfast is prepared is not the place where you would choose to read your papers or ask a friend to sit down.

But your wife or your Biddy keeps it looking so! There it is again. The brains of the woman whom, out of all the world, you have chosen for your companion, whose qualities you deliberately propose to have transmitted to your children, are here balanced by those of the maid to whose stupidity you grudge the pittance of her small dues. There are few men or women who have such an inheritance of noble qualities as that they are above the influence of occupations and surroundings.

But a man cannot be expected to provide two kitchens, or, when his wife takes charge of its routine, to move its fixtures into the parlor. Of course not. But this can be done. When the new house is building, or the old one going through the repairs that time brings round, the kitchen may properly claim a share of that expense and taste bestowed elsewhere. A little less in the parlor, sitting-room and chambers, and a little more of both convenience and taste in the kitchen, and the balance will soon be discovered in the better regulations and tempers of the *charge d'affaires* of the little world of home.

And where there is no building or repairing going on, there is no good reason why the kitchen, just as it is, should be the receptacle of all the odds and ends of that dilapidation of clothing and implements so frequently discovered in the kitchens of farm houses. You men, at least, who own your own farms, can afford to have a bit of room, or enclosure of some sort, where you can do the first rough stamping off of mud and snow, hang up your drenched garments, black your boots, oil your harnesses, in short, attend to general tinkering and make yourselves so presentable that your wife will be glad to see you crossing the threshold of her kitchen.

But the expense of all this. Expense! Did you ever figure on the cost of a good-for-nothing, slabbed-up, rickety old kitchen, with a stove that smoked, a wood-box that leaked, a bench without legs, a slouch dress and a scolding wife, with the smudge of old bridles, boots, coats, babies and dogs, all mixing in with the fumes of the dinner pot, as compared with that of a neat little room where everything looked as if it was accustomed to being where you found it, and so completely in place that there was no corner left for rubbish, and your wife stepped around in clean stockings and tidy hair, as if this kitchen, at least, had a

mistress whose temper had not been soured by contact with miserable surroundings.

The expense of a kitchen, well provided, well kept, and as inviting in all its appointments as any part of the domicil a family calls home! Don't talk. It will be a high day in the history of our civilization, and an economical day in the finances of households, when mistress and maid give thought to the fitness of kitchen attire as is now given to the appropriateness of parlor costume, and that will be a great day for kitchens, built, then, on purpose, rather than from the leavings unfit for other uses.

Bed Clothes by Mail.

I had heard of it, and thought this late severely cold weather a good time to test the warmth of a newspaper.

Did I sleep under just a paper the night of the first of January? No; that night I added a blanket, fleecy warm and double, which amounted to adding two. But one of the still very cold nights of the first week of the year, I removed a comfort from my bed, and supplied its place with papers spread between the blankets. Slept nicely. The next night I removed a new double blanket, spreading the papers between the one left. Nobody missed it. The following night I dispensed with the second double blanket, laying the papers between a single blanket and the spread. Warm feet and pleasant dreams for two. The fourth night I handed up my last blanket to a closet shelf, the papers rustling, this time, between the sheet and a Marseilles spread. For myself, I never slept more comfortably, but, towards day, my bedfellow grumbled a little, and proposed the compromise of a light blanket to tuck up his side.

The bed upon which we slept is a hair mattress, the bedroom adjoining a parlor with fire; our wood stove is of that decent sort which, when dampers are properly turned, finds us coals for the morning. A window, in either bedroom or sitting-room, is left down at the top, whatever the weather.

These facts are stated, not because I think newspapers, as bedclothes, preferable to other kinds, but that there are times when they may be used with advantage. Take half a dozen sheets, worn beyond service, and between each two tack your papers, so that they can be conveniently handled, and while the price of cotton batting is advanced so far beyond economical use, and blankets double the old cost, these will supply you in the emergencies of weather, or a houseful. MRS. HOYT.

Indian Meal Pastry.

This recipe may have been given before, but it is good enough to be tried again. Farmers' wives who have access to the top of the milk, we city ladies seldom see, will be prepared to do it justice.

Prepare pumpkin in the usual way, and thin it with good milk, adding as much real cream as you can spare. Your baking plate should have smooth sides, such as you find in the common yellow earthen ware. Butter as for any pie, and then sift on corn meal evenly to the thickness of an ordinary crust. Dip in your pumpkin with care, allowing it to settle gradually from the centre to the edge, until the dish is just full. Bake with a little quicker fire than usual.

CARROT PUDDING.—This may be made as squash pudding, (see Dec. No.) using a pint of well stirred and sifted carrot to three pints of bread.

Sugar Sauce—Boil a pint of sifted brown sugar; add a cup of sweet cream.—*Mrs. Mann's Cook Book.*

CHURNING IN WINTER.—You cannot get butter out of milk if there is none in it. Feed the cows well, and thus secure good milk, and there is not much trouble in churning, even in winter. Keep the cream in a warm room till it turns somewhat sour. Let the churn be scalded before putting in the cream, so that it will be well heated through and not cool the cream. Let the cream be at a temperature of 65° to 70°, and there will not be much difficulty in making the butter come. We see it stated that if a little rennet is added to the cream just before churning, it will help materially We think this quite likely, as it

would help to generate lactic acid. But do not put in too much.—*Genessee Farmer.*

YOUTH'S CORNER.

The People of the Desert.

A BEDOUIN ARAB.

BY MRS. HOYT.

Well now, this is a change, from the icebergs of Polar seas to the glowing sands of Arabia. Just think of it, the thousands of miles, the lands of beauty and wonder, and the homes of children that lie between!

Arabia—haven't you found your place yet? I thought you went to school. I don't talk to children who don't; and while you are finding out whether this country is in Europe, Asia or America, I will go on in company with those who have studied Geography and haven't forgotten their lessons.

A Bedouin Arab! How different this fierce wild face from those of our Esquimaux kin whose pictures we brought you last month! Those poor Icelanders want little beside fish and furs to keep them alive, but this new cousin of ours, this strange, wild man of the desert, he wants everything—flocks, caravans and power. You can see this plainly enough in the very look of him. That warm, brown face, those black, flashing eyes, and that intent expression of being after something, belong to no other people under the sun but these Arabians who, when they find what they want, take it.

The country in which they live, as well as the nature that is in them, make them the hot-blooded, restless people they are; for Arabia, more than any other land, is the land whose stories keep our eyes open. There, instead of grass, trees, flowers and brooks, God has spread out sand, clean, fiery, glistening sand; and over this just the sky, fiery and glistening too. In some portions of the country it never rains, and what rivers are there, and the rains that do fall, are soon lost amid the drifting sands that drink up moisture as would the red coals of a furnace.

As a people, the Arabs are divided into three classes: those who occupy the towns of the more habitable parts of the country, those who till what little farm land there is beside streams and in the coolness of mountain shadows, and these Bedouins, who are the old stock, more numerous than the rest, and who live by roaming and plunder. They are the descendants of Ishmael, the son of Hagar, and you will find in the Bible how the Angel of the Lord told Abraham that the posterity of this child, Ishmael, should be as the stars of heaven for number, but that they should be wild men, with their hand against every man's hand, and every man's hand against them.

This prophecy has been fulfilled by the millions of these wild, wandering Arabs, who have been the terror of neighboring nations, and who show no mercy to those whom they overtake in pursuit of subsistence and gain. But they have a superstitious notion that those who come to them come from God, and to such they are most hospitable, and besides taking care of them as guests, they help them on their way when the time of leaving comes. Yet these very persons, falling into their hands under other circumstances, share the fate of the common enemy, and an enemy is anybody who has anything a Bedouin wants.

Their manner of living, worship and government are as simple as can be. They dwell in tents, and subsist upon the milk of goats with such barley and dates as are secured by

traffic or force. They wear no clothing save a coarse sandal and a woolen garment girded at the loins, except, sometimes on long journeys, a covering for the head, as seen in the picture.

They worship God—the God of the great, red, flaming sky, and of the Sacred Well, which, as they find it now and then upon the desert waste, is indeed the Water of Life. Their government is that known as the Patriarchal, by virtue of which the oldest man in a tribe, or a number of united tribes, is supreme in all matters of public policy. He is called the Sheik, and whether in general or individual affairs, he is reverenced next to God himself.

Somethings, and Somethings not.

BY MRS. HOYT.

I am sitting here by my winter fire;
I am all alone and half asleep.
Now isn't it strange, my little friend,
When I never saw you in all my life,
Or heard your name, or the place you live—
That place being off five miles, or four,
Or it may be a hundred, a thousand, or more—
Strange, I say, that I should pretend
To be able to tell you as well as your sister,
As well as yourself, your mother or aunt,
Just how you look, and how you are dressed;
How old you are, and what you are doing;
By what sort of fire and by what sort of light,
You are reading the lines I am writing to-night—
Tell whether you're one of a good many other,
Or if you have any sister or brother;
If one is a baby, if any are older,
And if a dog it is, or a cat,
Lies asleep at your feet on that nice warm mat,
And about that last time your prayers were forgot,—
Tell whether you live in the country or town,
Your school house red, or white, or brown—
Tell whether you go to school or not,
And if your teacher is Miss, or is Mr—
All about what you study and what you like best,
And which page of your copy-book has that big blot,
And which of your shoestrings is all in a knot.
When I tell you all these and a good deal beside,
You will say "Oh, how strange!" with your eyes opened wide,
And strange it would be—for, of course, I can't.

☞ A debtor severely questioned as to the reason of his not paying a just debt replied: "Solomon was a very wise man, and Sampson a very strong one, but neither of them could pay his debts without money."

Enigmas.

I have come of an ancient stock.
I wear the hue of the cloud and the rock.
I am one you all have seen;
I sit on your knees, or your knees between.
You can spell me as you think best,
But the straighter you spell me the sooner I'm guessed.
My whole is but a single word.
Spell me right, and my first is the third;
Spell me wrong, and spell me your worst,
However you spell me, my second is first;
Spell me all, and you'll plainly see
You can spell me but once from A to Z.

Historical Enigma.—I am composed of three letters.

My 1 stands for two famous Generals, one of the Old, and one of the New World.

My 2 for two celebrated battle fields, one of the Old, and one of the New World.

My 3 for two great political parties, one of the Old, and one of the New World.

My whole is the thing most talked of since the war.

Conundrum.—In what color should a secret be kept?

Puzzle.—A man has 144 acres of land, and saves for himself 36, taken out as a square (*one fourth*). Tell me how to divide the rest so that four boys shall share equally, and each piece of land be the same shape.

ANSWERS.

To Enigma in last No.—*Snow.*

To Geographical Enigma—*Potomac;* sent in by Augusta S. Maywell, Baraboo; H. R. Williams, Palmyra; Temperance Carr, Dekorra; W. Bewick, Windsor; Miss McNurlin, Sextonville; S. R. Bell, Elkhorn; J. F. Barker, er, Arena; Elizabeth C. Allen, Berlin; J. D. E., Dodgeville; and W. J. Sherman, Eagle.

To Conundrum.—"Because they have studded (studied) the heavens for ages."

To Puzzle.—For fruit, the date; for flower, two lips (tulips); for animal, the hair (hare); sent in by Temperance Carr, Dekorra.

EDITORIAL MISCELLANY.

Our State Sorghum Convention

On the 3d and 4th of February gives promise of being largely attended. Let everybody come.

The importance of such gatherings to spread broadcast the facts elicited by the experience of each farmer during the past season cannot be overestimated, and, it is hoped, will not be overlooked by those interested in the success of this new branch of industry. Come with specimens of products and tufts of seed. Come one, come all; and you will not regret the investment of time or money. It will pay many fold in your next year's operations.

A Friend of the right Sort.—"Go Thou and do likewise!"

DR. HOYT:—Stimulated by visions of fine grapes and a valuable book, I have been getting up a club for the FARMER. I have taken it eight years myself, and have often advised my neighbors to take it, with but poor success; but since you have concluded to pay your subscribers so liberally for taking the very best agricultural paper published in the country, they have concluded to try it, and I think the most of the list I send you will continue to take it, even if you should offer no more premiums. I send enclosed the amount for thirteen subscribers ($18 40). * * I intend to send you some more subscribers, and when I send the next list I will send a list of selected premiums. *Eleven of this list are new subscribers.*

What about binding the FARMER? Do you bind as usual at old prices? And what about this unprecedentedly cold weather? Will it kill our fruit trees, as it did in 1856? Doctors and editors should know.

D. M. MINOR.

RUBICON, Jan. 11, 1864.

ANSWER.—Our warmest thanks, friend Minor, for your zeal and energy so successfully employed in behalf of the FARMER. A regiment of such workers would enable us to make our paper beyond all question the best agricultural journal in the world. We do bind the FARMER, and at the same terms as heretofore (40 cents). As to the weather, the All Good Director of mundane affairs alone knows just how it came about. Fruit trees may not have been injured at all, and winter wheat is well mantled. It is the thawing and freezing of early spring, more than the intense cold of winter, that ruins our fruit trees now and then.—EDITOR.

The Farmer, Fruits, Sorghum, &c.

MR. EDITOR:—Enclosed please find eight dollars for subscriptions to the FARMER for the year 1864. We have prevailed on a few of the old sinners to turn into the right road, and subscribe for and try it. I think it will pay any man who simply has an idea of trying to raise fruits.

The Sorghum question has come up about here somewhat, and some are getting interested in the culture of the cane. One of my neighbors wanted I should write to you, and see if you could give us, through your journal, as to who manufactures the best mills, evaporators, &c.—in short, the best machinery to purchase for the manufacture of the cane; what would be the cost of a mill and evaporator, and what is the best kind of cane, and where some good seed could be procured.

O. L. GLAZIER.

FAIRFIELD, Dec. 30, 1863.

[All this we will give you in next No. You had better come to the Convention.—EDITOR.]

Write for the Farmer!

Long winter evenings and stormy days afford to the farmer, and many others, leisure for reading and writing. Friends, give us the benefit of your thoughts and experience. Don't neglect it.

See Articles on Sorghum

In this number. The array of facts and figures in the extracts from the U. S. Agricultural Report will, doubtless, surprise every one who has not kept posted on the progress of Sorghum-growing since the beginning of this war.

The Agricultural Lectures

We had designed giving in January and February are necessarily crowded along to a later period in the winter. Important duties at home, together with rather poorer health than usual, have made it impossible for us to get away hitherto. It may be possible for us to reach a few points in Dane and the adjoining counties in the latter part of February and in March, should the farmers feel disposed to make the arrangements. The friends in counties more remote, who have so kindly urged us to visit and talk to their people, must "wait a little longer."

The Sorghum Convention

Called for February 3d, and 4th, gives promise of being largely attended; several manufacturers will be represented by a fine show of mills, evaporators, and other apparatus. Let there be a general turn-out of all who feel an interest in this important subject.

"Notables whom we saw in Europe."—

This series, begun in last No., is interrupted this month by the pressure of other matter and the failure of cuts.

Communications

From Messrs. Hanford, Topping, West, Miller, Cotton, Plumb, Fellows, and others, arrived too late for our use this month, and will appear in next number.

Sketches of Travel in Great Britain

Will be commenced in another number. Visits to Windsor Castle, the grave of the poet Gray, the birthplace and home of Shakspeare, to the great manufacturing, coal-mining and farming districts; journeyings to Edinburgh, the home of Sir Walter Scott, through the Highlands of Scotland; and a running glance at Ireland, are on the programme. For this month we are crowded out.

Agricultural, Horticultural,

And other like associations appear to be waking up all over the country, East and West. It is to be hoped that Wisconsin will not be content to always lag in the rear.

Correction.

Substitute the following table for one on page 65, which is incorrectly printed:

Wheat per 100 lbs	1,10	@1,05	per bu.
Oats "	1,10	@,50	"
Corn "	1,10	@.90	"
Wool "	1,90	@,88	per lb.

The Destruction of Turkey—

"The inevitable turkey," we mean, not the Ottoman Empire. Mr. Wm. Kollock, of Belleville, is responsible for our *eating our words* on this subject. We beg the injured bird's pardon. If there are any more rare specimens like the one friend K. presented, we have no objections to their living a little longer; provided, always, that *we* shall, in like manner, be entrusted with the duty of finally putting them out of the way.

BOOKS AND PAMPHLETS.

Report of the National Agricultural Department for the year 1862. A careful examination of this large and handsome volume prepares us to say much more in its favor than we have space for in this number, and the Commissioner, who has so kindly furnished us with several copies, will excuse our delay in duly noticing its important contents, and the various suggestions and recommendations he has seen fit therein to make to Congress. Only this we will say: It embodies more valuable practical matter of immediate national interest to the agriculture of the country than any previous volume since agricultural reports were first published by the Government. It does the Commissioner and his able staff great credit, and will accomplish much good by its wide distribution.

The Commissioner's recommendation as to an Experimental Farm for the use of the Department, is worthy of early adoption by Congress.

NOTICES OF NEW ADVERTISEMENTS.

Mr. Atwood

Of Lake Mills, advertises his Grapes. We have already published a report—see November number—on the thrifty and enterprising

management of Mr. Atwood's nursery and vineyard, and have pleasure in recommending his stock to our readers.

Mr. Willey

Advertises nursery stock. He is already well known to most of our readers.

See Tenth Annual Report

Of the Dodge County Mutual Insurance Co. We mean just what we say when we state it as our conviction that this is one of the soundest and most carefully managed Companies in the West.

Dr. Cook

Of Madison, invites an inspection of work as Dentist. We have personally tried it to our great satisfaction. He is professionally well educated, is up with all the modern improvements, and is, in all respects, well worthy the confidence of the public.

The State Journal

Advertises in this number. Being the oldest paper now published at the Capital, it needs no introduction from us. Read its list of terms, and remember that home papers are more desirable than foreign ones.

Reiter & Maddocks

Of Toledo, Ohio, again advertise their extensive Nursery stock.

PUBLISHERS' CORNER.

A Grumbler at Last!

The FARMER has, of late, been so universally commended, that we have sometimes thought it would be a luxury to have somebody grumble a little Well, a grumbler has at last turned up, in the person of a gentleman who dates his letter at Sussex, Waukesha Co. But, as he does not deign to particularize the grounds of his general dissatisfaction, we are forced to the conclusion that, even in this case, the complaint is referable to a "dun" for arrearages shamefully neglected, rather than to any very serious fault of the paper.

We have no idea that the FARMER is perfect. It would be difficult to find a paper that is. And, if such an one were to be found, conceited fault-finders, who never pay their subscriptions until after having been punched for the third or fourth time, would be the last to really sustain it.

If there are any more delinquents of this same ilk, we have no objections to their grumbling and stopping the paper—*provided always that they pay up their dues.*

A Reader who pays in Advance.

PUBLISHERS FARMER:—Enclosed please find one dollar to pay, for myself, the present year's subscription for the excellent WISCONSIN FARMER. I am greatly pleased with the improvements you are constantly making upon the paper, and often wonder how any intelligent farmer can consent to deprive himsels of the luxury of reading it.

Respectfully yours.

ENOS M. PHILIPS.

ANOTHER OF THE SAME SORT.—Messrs. HOYT & CAMPBELL:—Enclosed please find $1 for the FARMER for 1864. It pleased me that you stated in the December No. that the subscriptions came in so finely. Every farmer who can read the English language, should be a subscriber for the FARMER, and if he intends to plant an orchard, I don't see how he can do without it. I can convince anybody of this, if he will come and see my young trees which I have planted since I became a reader of the FARMER. If any one should ask me what has become of those planted fifteen years ago, I can only show them the bare ground. I intend to send you an article on this subject for the next volume. So send the old friend along.

JOHN F. GRAVES.

HONEY CREEK, Dec. 29, 1863.

[So long as letters of this sort come pouring in by the hundred, it will be hard to convince us that the FARMER is not doing a good work. —PUBS.]

"Grape Vines &c. to Sell?"

No; you must order of the best nurserymen *direct.*

Postage and Clubbing Privileges.

We again ask attention to our Prospectus on cover. A little further time to those who have not been quite ready to send in their dollars and lists of names, has been granted.

Several Illustrations

Ordered for this number were delayed on the way, and arrived too late for use. Next month, and hereafter, the FARMER will be made more attractive in this respect.

NEWS SUMMARY.

INDUSTRIAL AFFAIRS.

Agricultural Convention of Illinois.

The Agricultural Convention lately held at Springfield, Illinois, was an occasion of great interest. Delegates were present from many of the counties, and beneficial results can hardly fail to follow. Resolutions were adopted, urging the importance of united action, of concentrating all the efforts of the friends of industrial education upon the upbuilding of *one* institution "entirely untrammelled by any other institution now in operation," and upon several other matters of interest. Illinois is a great and wealthy State, and should early establish a noble Agricultural College.

The Illinois State Fair for 1864 is to commence Sept. 12.

The Meeting of the Ex. Committee

Of the State Agricultural Society will commence on the 2d inst., and continue until the completion of business.

St. Croix Co. Ag. Society.

DEAR SIR:—The amount paid into the treasury of this Society the past year, as shown by the Treasurer's report, is one hundred and thirty-five dollars and seventy-five cents; which amount was expended in the payment of premiums, and fitting up Fair Grounds.

The Officers elect are:—Wm. Martin, President; T. D. Hall, Stirling Jones, C. A. Hall, Vice Presidents; Wm. M. Otis, Treasurer; S. Curtis Simonds, Recording Secretary; A. F. Gallop, Corresponding Secretary. The additional members of the Executive Committee are John Richardson, E. L. Nash, C. D. Musser.

A. D. GRAY.

Kenosha Co. Ag. Society.

The following is a list of the officers of the Society:—Samuel E. Tarbell, President; P. H. Wood, Vice President; J. H. Benedict, Secretary; J. D. Fowler, Treasurer.

J. D. FOWLER.

STATE AFFAIRS.

The Markets

Are still more favorable to farmers. Wheat has advanced three to four cents per bushel since last month. Other products are looking upward.

Milwaukee, Jan. 18.

Flour—Quiet, sales of 125 bbls spring at 5,25.

Wheat—Advanced. Sales spring No. 1, in store 121½@121¾. No. 2, 112.

Barley—Firm. No. 2, in store, 1,15, No. 1. 1,20. Oats—quiet. Sales at 59c.

Dressed Hogs—Receipts 4,869 head; market quiet, price unchanged, with sales dividing on 200 lbs. at 6,50@7,50.

Gold—1,56@1,57.

New York, Jan. 18.

Flour—7,95@7,00 extra State; 7,50@7,75 Ohio.

Wheat—1,50@1,56 for Chicago Spring; 1,53 @1,58 for Milwaukee club; 1,60@1,66 Winter Red.

Corn—in store, 1,25. Oats—92@93c. Pork steady. Lard 13@14c.

Wool—Native fleeces 77@88; extra pulled 78@79c. Gold 1,54@1,55.

The Governor's Message

Delivered on the 14th, is a sound document, and does his Excellency much credit. The finances of the State and the claims of the industrial interests have, perhaps, never been more clearly and satisfactorily set forth. In our next number we shall publish extracts from those portions which relate to the industry of the State.

The Legislature

Convened on the 13th ult. The following is an official list of the members of both Houses. "Union" men in Roman, Democrats in Italic:

THE SENATE.

1. *John E. Thomas.*
2. *Fred. S. Ellis.*
3. *John R. Bohan:*
4. *P. O. Therp.*
5. *Wm. K. Wilson.*
6. *Hugh P. Reynolds.*
7. T, D. Morris.
8. A. Van Wyck.
9. A. M. Kimball.
10. Wm. Blair.
11. Willard H. Chandler.
12. N. M. Littlejohn.
13. *J. H. Earnest.*
14. S. S. Wilkinson.
15. *G. L. Frost.*
16. Milas K. Young.
17. Wm. A. Lawrence.
18. W. E. Smith.
19. *Jos. Vilas Jr.*
20. Geo. F, Wheeler.
21. J. B. Hamilton.
22. Joseph Harris.
23. *J. D. Clapp.*
24. W. S. Wescott.
25. Jonathan Bowman.
26. Thomas Hood.
27. Alex. S. McDill.
28. A. H. Young.
29. C. S. Kelsey.
30. Wm. Ketchum.
31. Angus Cameron.
32. C. C. Pope.
33. *Sat. Clark.*

"Union," 22; Democrats, 11.

ASSEMBLYMEN,

Adams—A Rood.
Ashland, Burnett, &c.—H D Barron.
Brown—*W J Abrams.*
Calumet—*Thomas McLean.*
Columbia—A J Turner, E W McNitt, Yates Ashley.
Crawford—Horace Beach.
Dane—W W Blackman, Wm H Miller, George Wright, *A S Sanborn, Geo B Smith.*
Dodge—G H Adams, Wm H Green, *O F Jones, Max Buchuber, J G Daily.*
Door, Oconto and Shawanaw—Hermann Naber.
Eau Claire, Chippewa and Dunn—T C Pound.
Fond du Lac—Wm Starr, E H Galloway, James McElroy, Edgar Wilcox, *Charles Geiss.*
Grant—Hanmer Robbins, Allen Taylor, J Allen Barber, W W Field, W R Beach.
Green—W W McLaughlin, F B Rolfe.
Green Lake—James Field.
Iowa—Francis Little, W L Lincoln.
Jackson and Clark—C R Johnson.
Jefferson—J M Bingham, A B Smith, Joseph Powers, *Robt. Hasse.*
Juneau—Lyman Clark.
Kenosha—A C Barry.
Kewaunee—*Nelson Boutin.*
La Crosse—S S Burton.
La Fayette—Sam'l Cole, *Turlton Dunn.*
Manitowoc—*David Smoke,* P P Fussenick, *Thomas Thornton.*
Marathon and Wood—*Bart Ringle.*
Marquette—*Rob't Cochrane.*
Milwaukee—Levi Hubbell, N B Caswell, J C U Neiderman, *David Knab, J W Evisten, F T Zeller, James Watts, Anthony Fry, Ed McGarry.*
Monroe—C E Rice.
Outagamie—*George Kreiss.*
Ozaukee—*W T Bonniwell, Jr.*
Pierce and St. Croix—J S Elwell.
Portage—John Philips.
Racine—Geo C Northrup, Henry Stevens, Philo Belden.
Richland—John Walworth.
Rock—Thomas Earle, T H Goodhue, Guy Wheeler, H Richardson, Jerome Burbank, Perry Bostwick.
Sauk—Alonzo Wilcox, A W Starks.
Sheboygan—*Carl Zillier, Lewis Wolf,* Michael Winter, Mark Martin.
Trempeleau, Pepin and Buffalo—Fayette Allen.
Vernon—W H Officer, Albert Bliss.
Walworth—Dan'l Smith, D C Boundy, Lucius Allen, John Jeffers.
Washington—*Nicholas Marx, Martin Schottler, H Hildebrandt.*
Waukesha—J R Carpenter, N Shultis, John Smith, *Wm Costigan.*
Waupaca—A K Osborne.
Waushara—W C Webb.
Winnebago—R C Russel, Geo S Barnum, Jeremiah Hunt

"Union," 71; Democrat, 29.

members are men of legislative experience, and both houses include many of the ablest men of the State.

NATIONAL AFFAIRS.

Nothing remarkable for of great national importance has transpired since our last issue. Volunteering is going on briskly everywhere, and it now looks as though in the spring we might give the rebellion that death blow of which there has been so much talk since the opening of the war.

Congress has been busy, chiefly on military matters. The amended Conscription Bill has passed the Senate. Its most noticeable features are raising the commutation fee to $400, reducing the number of exemptions, and abrogating the distinction of classes.

FOREIGN MATTERS.

Affairs between Germany and Denmark are very threatening. The general opinion in Europe seems to be that war is unavoidable. Garibaldi has resigned his seat in the Sardinian Senate; and Kossuth has issued a Proclamation to the Hungarians, calling on them to be ready. Europe seems to stand on the verge of stirring events.

STATEMENT
OF THE
Madison Mutual Insurance Co.

FOR THE YEAR ENDING
DECEMBER 31, A. D. 1862.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 103, of the General Laws of 1858.

Total amount of accumulations..... $327,464 67

ASSETS.

Unimpaired premium notes of policy holders	$281,000 07	
Cash on hand and due from policy holders and agents for cash premiums	45,464 60	
Office furniture and fixtures	1,000 00	327,464 67
Whole No. policies issued		22,061
Am't of outstanding risks thereon		$15,962,090 00
Number of policies issued in 1862		7,706
Am't of outstanding risks thereon		$6,069,813 00
Am't premium notes thereon		108,323 93
Am't cash premiums thereon, less commissions to agents		45,727 80
Am't interest received		972 18
Total am't losses reported during 1862		$17,744 16
Total am't losses paid during 1862, 89 in number		21,413 97
Am't claimed for loss, resisted as fraudulent		2,000 00
Losses adjusted and due		none,
Losses adjusted and not due		none.
Losses unadjusted		292 35
All other claims against the company		97 50
Am't paid for advertising and postage		1,763 66
Am't paid for printing		540 80
Am't paid for policy stamps		600 00
Am't paid taxes to Com'r Internal Revenue		82 62
Expenses paid, including all compensation to Officers and Directors, stationery, extra clerk hire, fuel, lights, and other in-		

Comparative Statement of the business of the Company for the years 1859, 1860, 1861 *and* 1862.

	1859.		1860.		1861.		1862.	
Total amount of accumulations		$30,080 95		$110,369 49		$216,865 76		$327,464 67
ASSETS.								
Premium notes of policy holders	$35,462 46		$92,487 27		$180,124 63		$281,000 07	
Cash on hand and due from policy holders for cash premiums	2,986 02		16,409 74		35,408 66		45,464 00	
Amt secured by mortgage and judgment	332 47		$32 47		333 47			
Office furniture and fixtures	300 00	30,080 95	1,000 00	110,369 49	1,000 00	216,865 76	1000 00	327,464 67
Whole number of policies issued		4,807		8,579		14,357		22,061
Amt of outstanding risks thereon		$2,409,950 49		$5,451,115 49		$10,320,769 00		$15,963,000 00
Total amt of losses paid and settled		2,409 45		6,908 31		8,450 01		21,413 97
Losses reported and awaiting further proof *				499 53		7,351 12		* 2,000 00
Whole number of policies during the year		1,187		3,722		5,778		7,706
Amt of outstanding risks thereon		$1,140,076 00		$3,016,115 49		$6,315,173 00		$6,060,813 00
Amt of premium notes thereon		17,109 82		68,789 45		93,944 06		106,323 93
Amt of cash premiums thereon		11,069 04		35,761 88		43,377 36		† 45,127 80
Amt of commissions paid to agents		3,317 70		10,339 18		7,400 84		
Amt of expenses paid, including all compensation of officers, printing, advertising, postage, and all other incidental expenses	3,317 71		5,847 44		9,071 89		7,900 98	

* Resisted as frandulent.

† Deducting agents' commissions.

DIRECTORS FOR THE YEAR 1862.

J. W. BOYD, Walworth Co.
D. WORTHINGTON, Waukesha Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
ORRIN GUERNSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
DAVID TAYLOR, Sheboygan Co.
S. R. McCLELLAN, Kenosha Co.
J. T. LEWIS, Columbia Co.
JOHN TOAY, Iowa Co.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. F. HASTINGS, General Agent.

LOSSES PAID BY THE COMPANY IN 1859.

S H Colman, Juneau, Dodge Co	$10 00
J H Seaman, Richland, Richland Co	10 00
Fanny Plummer, Mauston, Juneau Co	15 00
Geo F Taylor, Madison, Dane Co	15 00
Nelson Sickles, Waterloo, Jefferson Co	600 00
A L Beebee, Dunn, Dane Co	650 00
J H Barber, Juneau, Dodge Co	66 00
Jas H Main, Juneau, Dodge Co	403 57
Thos Mayhew, Merton, Waukesha Co	27 00
W N Seymour, Madison, Dane Co	20 00
Wm Edwards, Sugar Creek, Walworth Co	400 00
Leonard Hatch, Kenosha	100 00
	$2,409 45

LOSSES PAID IN 1860.

J S Wilmarth, Sun Prairie, Dane Co	$214 80
Cyrus S Davis, Menominee Falls, Wauk Co	5 00
J W Cook, Dane Co	15 35
Lewis Thompson, La Prairie, Rock Co	172 56
Henry Johnson, Somers, Kenosha Co	12 50
Pliny Putnam, Rubicon, Dodge Co	5 00
E B Thurtell, Jamestown, Grant Co	500 00
A A Anderson, Delafield, Waukesha Co	7 00
Jas T Walkin, Eagle, Waukesha Co	20 00
C Sutherland, Fitchburg, Dane Co	10 00
Harrison Koons, Concord, Jefferson Co	400 00
Owen Garity, Sullivan, Jefferson Co	6 00
C P Churchill, Waukesha Co	5 56
Caleb Jewett, Town of Madison, Dane Co	17 51
Mary La Follett, Primrose, Dane Co	115 00
Wm A Stowell, Cottage Grove, Dane Co	1,041 71
Sam H Sabin, Windsor, Dane Co	18 00
Abel Strong, Marcellon, Columbia Co	382 71
Quartus Towry, Johnstown, Rock Co	5 00
Robert Hornby, Fairfield, Sauk Co	496 05
Thos Stevens, Dane, Dane Co	220 06
John Wightman, Berry, Dane Co	751 80
Douglas Oliver, Glen Haven, Grant co	1,000 00
Josiah Pierce, Pardesville, Columbia co	400 00
	$6,908 23

LOSSES PAID IN 1861.

L D Lateer, Janesville, Rock co	$499 53
Edward Walsh, Centre, La Fayette co	306 80
Nathan Kellogg, Madison, Dane co	15 00
Henry A Chapman, East Randolph, Col co	20 00
Jared Bishop, Jamestown, Grant co	371 00
Allen Hoxie, Porter, Rock co	1,600 00
O C Burdic, Christiana, Dane co	2 00
Samuel Ceossett, Juneau, Dodge co	13 50
Albert Gaston, Cottage Grove, Dane co	11 13
Stephen Young, Somerset, St. Croix co	380 00
A L Beebee, McFarland, Dane co	699 01
Alfred Taber, Delavan, Walworth co	350 00
Lydia D Crocker, Lake Mills, Jefferson co	2 00
John Feller, Bear Creek, Sauk co	646 05

C B Francis, Janesville, Rock co	20 00
G W Harger, Tafton, Grant co	5 00
J M Hartlin Rutland, Dane co	4 50
B C Hildreth, Summit, Waukesha co	4 90
J S Dayton, Janesville, Rock co	30 00
Wm Kendrick, Oregon, Dane co	37 50
Henry Mitchell, Hazle Green, Grant co	25 00
John Mortimer, Boscobel, Grant co	10 00
John Kispert, Jefferson, Jefferson co	390 00
Darius Reed, Sullivan, Jeff rson co	250 80
John A Gilman, Sparta, Monroe co	375 00
Rasselas Bardeen, Albion. Dane co	50 00
Hiram E Coan, Palmyra. Jefferson co	200 00
John W Butts. Cottage Grove, Dane co	262 63
Wm Aldrich. Burlington, Racine co	30 00
W W Fowler, Eagle, Waudesha co	280 g5
Levi G Kendall, F rt Atkinson, Jefferson co	100 00
John Wright, Waukesha, Waukesha co	100 00
J W Herrick, Rut and, Dane co	340 96
Geo Anschetz, Ozaukee, Ozaukee co	40 00
	$6,881 16

LOSSES PAID IN 1862.

Wm Hoos, Wautoma, Waushara co	463 17
Benj Garthwaite, Grant co	535 78
Darius Reed, Jefferson co (balance)	41 20
Hiram E Coon, Jefferson co	197 67
Nathaniel Blakely, Rock co	1,332 07
Geo Tayl r, Dane co	778 45
Benj Stanton, Kenosha co	308 33
John W Butts, Dane (balance)	500 00
Henry & Smith Wright, Rock co	112 50
L D Fargo, Jeff rson co	3 50
David Jones, Iowa co	600 00
John Weiner, Jefferson co	298 50
J M & N D & T W Williams, Walworth co	700 00
Pat Devine, Dane co	10 00
John Morcam, Iowa co	9 60
Frances L Mossman, Racine co	18 00
W W Hulman, Pierce co	30 00
J C Burns, Dane co	33 10
C H Orcutt, Rock co	5 00
Richard Richards, Iowa co	334 00
J G Lyon, Fond du Lac co	358 00
Almon King, Rock co	5 00
W B Glindinnin, Winnebago co	578 00
W C DeWolf, Waukesha co	15 00
E A Carver, Dane co	455 00
Milton Jennings, Columbia co	278 84
John B Pember, Rock co	30 00
Alex McKenzie, Iowa co	55 00
Fred Haffele, Fond du Lac co	75 00
Jane Fraser, "	218 00
Wm Martens, Ozaukee co	12 00
David Evans, Marquette co	50 00
Sam Hartford, Dodge co	533 00
H A Tenney, Dane co	350 00
R R Child, Dane co	4 00
Jane Sen a, Dane co	15 09
Dan Heddles, Rock co	4 00
E A McLean, La Crosse co	19 00
Herman Sander "	5 00
Wm P Ben ly, Dane co	900 00
Saman ha Burt, Gr en co	5 15
E A Carpenter, K nosha co	6 00
A G French "	25 00
A Trowbridge, Dodge co	8 00
Fred Linkmire, "	300 00
D M Dippo, St Croix co	25 00
James Hunter, Buffalo co	190 00
Andrew Bailey, Rock co	7 75
James Slaughter, Pierce co	750 00
Geo N Thomas, Grant co	300 00
Climens Powell, Minnesota	300 00
Joseph Brookbank, St Croix co	150 00
S C Johns n, Pierce co	25 00
A W Peck, Fond du Lac co	13 00
P E Hardy, Sepin co	120 00
David Evans, Marquette co	400 00
Geo Moakley, Pierce co	113 15
Delamer Francisco, Waushara co	210 50
J E Chamberlain, Marquette co	10 00
Wm James, La Fayette co	125 00
Catharine Demaret, D dge c	223 00
Martyn Alwyn, Sauk co	239 07
athan Blivin, Rock co	580 42
H Kitteringham, Dane co	141 00
Sea R Chrysler, Rock co	12 50
Martin Gensmer, Dodge co	328 23
G F Lawton, Rock co	785 58
Sylvester Dunlap, Dane co	164 00
Wm Baumes, Walworth co	25 00
E Thatcher, Rock co	292 36
N J Doolittle, Rock co	46 75
Clapp & Davis, St Croix co	366 25
Chas Taylor jr, Waukesha co	26 00
Wm Perry, Iowa co	238 70
Samuel King, Minnesota	1,110 72
C H Wilder, Green co	9 50
S P Tibbits & A Foster, Walworth co	485 44
Tracy Montgomery, Rock co	36 81
Patrick D Murray, Milwaukee	800 00
Alfred Crandall, Dane co	112 50
A B Devoe, Dane co	200 00
Andrew Flam, Dane co	653 46
E C Spink, Dane co	40 00
T D & D W Kanouse, Dane co	8 00
Oliver Hanchet	620 83
Wm Robson	439 15
	$21.413 97

A Brief Summary of the Company's Plan of Operations.

1. To insure buildings at not more than wo thirds their cash value, and thus protect the Company from the designs of the fraudulent, and keep the insured interested in the preservation of their property.
2. Not to insure more than $2,000 in a single risk.
3. To insure no building within twenty feet of any other building.
4. To allow the insured to set up additional stoves or make additions or alterations to the buildings, if the hazard is not increased thereby, without notifying the Company.
5. To pay damages caused by the effects of lightning, although the property may not be burn d.
6 To hold itself responsible for the correctness of the surveys and other official acts of its agents.
7 To avoid over hazardous property, such as stores, mills, taverns, saloons, factories, &c., &c., and confining its business to farm and homestead risks.
8. ☞ The Premium Notes given to this company expire with the policy for which they were given, and are not held as a perpetual indebtedness against the maker—as in many Mutual Companies.

"The amount of business transacted by this Company, the promptitude, integrity and strict system which characterise every transaction, place it among the leading Insurance Companies of the West —*Mil. Sentinel.*

"This Company by fair and honorable dealing has worked its way into public confidence in a high degree; it now s ands first among the home companies in the State.—*Madison State Journal.*

"We have the pleasure of an acquaintance with nearly all the officers and directors, and we know them to be such men as can be trusted with the important interests of their fell w citizens."—*Home League.*

Business of the Company for the six months ending June 30, 1863:

Number of Policies issued	5,277
Amount Premium Notes thereon	$59,417 42
Amount Cash Premiums thereon	42,946 08
Amount losses paid	10,929 99

AGGREGATE

Total am't accumulations to July 1, 1863	$429,827 19
Total number Policies issued by the Company	27,33
" " " now in force, about	20,000

Office, Porter's Block, Madison.

GRAPES! GRAPES!

GRAPE CULTURE has been a specialty in my business for the last twelve years, testing by actual experiments a great number of new varieties, to ascertain those that would be suitable for the soil and climate of Wisconsin, Minnesota, Iowa and Illinois. No expense of means and labor has been spared in sifting out of the large number of worthless varieties those that would succeed with ordinary care and culture. During this time not less than two hundred thousand plants have been sent out from my grounds through the district of country above mentioned, a large number of which are now in successful bearing, and from which I have received the most encouraging reports. All of which will bear me out in saying that the Grape stands at the head of the class of small fruits, both in profit and pleasure.

To those that plant the Vine. I have now on hand ready for spring delivery, the largest and finest stock of Grape roots ever before offered in the West—consisting of all the New and Old varieties that are desirable, together with a good stock of APPLE, PEAR. PLUM, CHERRY, with *Ornamental and Evergreen Trees.* I claim

1. That my vines are cheaper than can be purchased from any Eastern establishment, when the quality of roots is taken into account.

2. They are all grown in the open air, and not under glass and in forcing pots, as most Eastern plants are.

3. They are raised from large, healthy, bearing vines, of which I have a large stock.

4. That most of them will fruit the first or second season from planting.

Transportation is less, and I hold myself responsible for all mistakes in varieties that I send out.

All orders will be booked and filled as received. Vines and all the Small Fruits securely packed and delivered on railroad free of extra charge.

Send stamp for Descriptive and Price List.

ISAAC ATWOOD.

Rock Lake Vineyard and Nurseries.

LAKE MILLS, Jefferson Co., Wis.

NOW READY.

OUR NEW PRICE LIST OF FRUIT and ORNMENTAL TREES.

APPLE,
BLACKBERRIES
CURRANTS,
RASPBERRIES,
STRAWBERRIES,
GOOSEBERRIES,
PIE PLANT,
LOCUSTS,
MAPLES,
HONEYSUCKLES,
SPIREAS,
SYRINGAS,
TAMARIX,
WEIGELIAS.

EVERGREEENS.

GARDEN SEEDS, &c.

And will be sent to all applicants, free of charge. Agents wanted to sell first class nursery stock. Our Seeds are Western grown and put up expressly for the Western market. Everything warranted true to name.

O. S. WILLEY & CO
Vine Hill Nursery.

MADISON, Wis. Jan., 1864.

DENTISTRY.

Dr. A. E. COOK, - Surgeon Dentist.

INVITES persons wishing Artificial Teeth to call at his Office and examine specimens, inserted on Gold or Vulcanite, &c.

Full sets, upper or lower, for $15, and upward, depending on the material used for plates.

Persons coming from a distance need remain but a few hours at the office to have a fine set of teeth.

All branches of the profession promptly attended to.

Entire satisfaction guaranteed.

☞ Teeth extracted without pain. ☜

Office on Pinckney St, over Jones' Hardware Store.

Madison, 1864. 2w64

G. T. WINSLOW,

WHOLESALE AND RETAIL DEALER IN

Millinery Goods, Bonnets, Hats, Caps and Headdresses,

In PORTER'S BLOCK, North corner Capitol Park.

Madison, Wis., Sept. 29, 1863.

GREAT WESTERN NURSERIES.

TOLEDO, - - - - - OHIO.

WE have an extra large Stock of nice grown trees, consisting of

APPLE,
DWARF PEAR,
ORANGE QUINCE,
NECTARINES,
GOOSEBERRIES,
BLACKBERRIES,
GRAPES,
CURRANTS,
STRAWBERRIES.

Evergreens and Hardy Ornamental Shrubs.

All of which will be sold at low prices.
Trade List and Catalogues sent to applicants.

REITER & MADDOCKS.

TOLEDO, O., Jan. 15; 1864.

JOHN P. ROE

IMPORTER and Breeder of Pure bred Durham Cattle and South Down Sheep, offres for sale on reasonable terms a few fine Calves, Bulls and Heifers. Color chiefly red.

Post Office address, Durham Hill, Waukesha Co., Wisconsin.

Muskego, Waukesha Co., Wis., Dec. 18, 1863. jan4

TENTH ANNUAL REPORT

OF THE

DODGE CO. MUTUAL INS. CO.

January 1st, 1864.

Amount of Capital Jan. 2d, 1864.....$94,377 96

CONSISTING OF

Premium Notes.....	$80,014 12	
Real Estate and Office Furniture...	836 49	
Cash on deposit and in Co's Office..	2,096 53	
U. S. 5.20 Bonds.....	2,500 00	
Cash loaned on Call.....	2,149 00	
Bills Rec. having from 1 to 6 mos. te run.....	6,781 82	
		$94,377 96
Whole No. Policies issued since Jan 1, 1863...		1,210
Whole No. Policies outstanding Jan. 1, 1864..		6,010
Whole amount at risk thereon.....		4,733,538 00
Cash Premium.....		9,390 16
Cash received for interest, and other sources,		875 37
Paid unearned Premium.....		64 41
Paid expenses of Officers, Agents, Printing, Postage, Rents, Fuel, Stamps, Taxes' &c.....		5,247 86

Paid the following Losses since Jan. 1 1863:

Peter Phelan, Farmington, Jefferson co.....	270 38
L C McCleary, Sextonville, Richland co.....	8 00
J S Hobart. Royalton, Waupaca co.....	15 25
E R Disbrow, Taycheeday, Fond du Lac co.....	250 00
G W Anderson, Princeton, Green Lake co.....	650 00
G Madsen, Cato, Manitowoc co.....	15 25
D Mauser, Ellington, Outagamie co.....	15 62
Platt Fish, Dallona, Sauk co.....	667 00
J A Northrup, Clyman, Dodge co.....	615 20
Eliza A Mansfield, Greenbush, Sheboygan co.....	4 13
Carl Rusch " "	13 00
N Blodgett, Stockton, Portage co.....	150 00
F Steink, St. Marie, Green Lake co.....	388 00
Alvah Knapp, Metomen, Fond du Lac co.....	43 86
Cecelia Drifarst, Mashfield "	222 50
Philip Goetz, Newton, Manitowoc co.....	67 25
J Winberger, Leroy, Dodge co.....	63 75
F Rathermel, Plainfield, Waushara co.....	12 00
J N Hall, Forrest, Fond du Lac co.....	450 00
Rudolph Jaeger, Franklin, Sauk co.....	92 50
C L Gould, Sheboygan Falls, Sheboygan co.....	209 00
G W Nelson, Princeton, Green Lake co.....	300 00
August Rork, Farmington, Jefferson co.....	300 00
Total.....	$4,813 69

There are no unsettled claims against the Company of any kind. All claims have been adjusted promptly and paid. We still adhere to our rule of insuring nothing but *Farm Property and isolated Dwellings*. Our capital is steadily increasing and the Company stands second to none, and the risks they assume are of the safest kind.

We ask your continued patronage and that of your friends.

EDWIN HILLYER, Sec. GEO. W. BLY, Pres.

JOS. T. HILLYER, Treasurer.

Logan Graves, Wm. G. McElroy, Geo. Babcock, M. L. Coe, L. B. Hills, and Hanson Ely, *Directors*.

A. F. WALTZINGER

Wholesale and Retail Dealer in

CANDIES, FRUITS, CONFECTIONERIES.

AND FANCY ARTICLES.

HAS on hand and is constantly manufacturing or receiving the finest Candies Confectionery of every kind. Also Fancy Articles, Toys, Masks, Ornaments, &c.

FANCY CAKES ON HAND AND MADE TO ORDER.

☞ *Sociable and Wedding Parties supplied.*

Seasonable Fruits received by Express from the South.

A. F WALTZINGER,
No. 6 King St., Madison, Wis.

PROSPECTUS FOR 1864.

WISCONSIN STATE JOURNAL!

DAILY, TRI WEEKLY AND WEEKLY.

OFFICIAL STATE PAPER!

TERMS:

DAILY.—Sixty cents a month, or $7 a year, invariably in advance.

TRI-WEEKLY.—Published three times a week, to wit: the first edition on Tuesday, Thursday and Saturday evenings; the second edition on Monday, Wednesday and Friday evenings. Price 30 cents a month, or $1 20 for four months; $3 50 a year, invariably in advance.

WEEKLY.—Published on Tuesday, Price $2 a year: $1 for six months. In clubs of TEN or more $1 50 to each, invariably in advance.

STATE JOURNAL FOR THE SESSION.

The State Journal for the present session of the Legislature will be furnished to single subscribers for any number of weeks they may desire, at the above rates. Those who wish for full Legislative reports must subscribe for the Daily or Tri-Weekly. The Weekly will contain a carefully prepared editorial synopsis of Legislative proceedings, which will be more generally satisfactory to country readers than the full report, since it will enable us to find room for a large amount of miscellaneous reading which otherwise would be crowded out by Legislative reports.

For the convenience of clubs we offer the following

CLUB RATES FOR THE SESSION.

DAILY.—Ten copies for a session of 12 weeks..... $15 00

TRI-WEEKLY.—Twelve copies for a session of 12 weeks..... 8 00

WEEKLY.—Twelve copies for a session of 12 weeks 4 90

Address ATWOOD & RUBLEE.

Madison, Wis.

LAKE SIDE

Nursery and Seed Garden!

MADISON, - - WISCONSIN,

THIS new establishment is now open to Dealers, agents and the retail trade for the spring of 1864. It contains an unrivalled collection of choice Apples, one and two years old, including over 100,000 *Crown Grafted, grown distinct*. Large Sizes in small quantities.

CURRANTS—in great variety—Red, white and Black, one and two years, in large quantities. Also a general assortment of Fruit and Ornamental

Trees, Shrubs, Vines, &c.

The especial attention of the Trade, those wishing to plant largely, and those living remote from Nurseries, is called to this Stock as superior for their wants.

A FULL ASSORTMENT OF GARDEN SEEDS

☞ Sent by mail or Express. Send for circular Price List and Catalogue. Packing done in the best manner.

Address

J. C. PLUMB.
Madison, Wis.

jy63tf

M. KOHNER
MERCHANT TAILOR

AND DEALER IN

Ready-Made Clothing, Cloths,

HATS & CAPS, TRUNKS, CARPET BAGS &c.

Three doors below the Capital House, Main Street,

Madison, Wisconsin.

A Large Stock of Gents' Furnishing Goods on hand.

CRAIG MICROSCOPE!

THIS is the cest and cheapest Microscope in the world for general use. It requires no focal adjustment, magnifies about 100 diameters or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2 25 or with six beautiful mounted objects for $3, or with 24 objects for $5. Address

HENRY CRAIG,
180, Centre street, New York.

☞ A liberal discount to the trade.

JOHN P. ROE,

IMPORTER AND BREEDER OF PURE-BRED DURham Cattle and South Down Sheep, offers for sale, on reasonable terms, a few fine calves, bulls, and heifers. Color chiefly red. Post Office address, Durham Hill, Waukesha Co., Wisconsin.

Muskego, Waukesha Co., Wis., Dec. 18, 1863. jan4t

J. C. McKENNEY,
ATTORNEY AT LAW,

77 DEARBORN STREET,

Chicago, : : : ; : : Illinois.

SPECIAL attention given the collection of soldier's claims for

BOUNTY, BACK PAY, PENSIONS, &c.,

My former connection with the army enables me to prosecute claims *understandingly* and with promptness. Full instructions and *approved* blanks furnished to those who wish to act as agents, through me or otherwise, on reasonable terms. All letters asking for information, containing return stamp, will receive immediate attention. **All kinds of Collections attened to.**

MADISON BOOK BINDERY.

B. W. SUCKOW

Blank Book Manufacturer & Book Binder.

PORTER'S BLOCK - - MADISON, WIS.

ACCOUNT Books of every description made to order of superior paper and workmanship at moderate prices, and warranted to give satisfaction in every particular.

All Kinds of Binding and Ruling

Executed to order, and in the best manner.

OLD BOOKS RE-BOUND IN GOOD STYLE.

The Subscriber, having had a long experience in the business, feels assured that he can give entire satisfaction of all who may favor him with their patronage, both in prices and workmanship.

Orders respectfully solicited.

B. W. SUCKOW.

MILWAUKEE AND CHICAGO

RAILROAD LINE.

TWO Through Trains Daily between Milwaukee and Chicago. Close and reliable connection in Chicago with all the *Eastern, Southern and Southwestern Lines.*—Also connects with the Racine & Miss. R. R. at Racine, and with Ken., Rockford & Rock I. R. R. at Kenosha.

Time as Quick and Fare as Low,

As by any other route, JNO. T. MOODY,
Mas. Trans., Milwaukee.

Bloomington (Ill.) Nursery

160 ACRES.

APPLE TREES—best ever offered, $30 to $60 per 1000. Also Pears, Grapes, Small Fruits, with general assortment, Ornamentals, Nursery Stocks &c.

30,000 Tulips, with Hyacinths, Crocus, &c. Plant in fall.

Send Red Stamp for catalogue. F. K. PHŒNIX.
Bloomington, Ill oe8

PITTSBURG, FT. WAYNE AND CHICAGO

RAILWAY.

THE Shortest line from Chicago to New York, Baltimore, Harrisburg, Philadelphia, Washington City and Pittsburg. Also the direct route to Boston, Dunkirk, Cincinnati, Albany, Cleveland, Wheeling, Columbus, Buffalo, Dayton; and all cities and towns between Chicago and those points above named.

Trains leave the West side Union Depot, corner Madison and Canal streets, Chicago, on arrival of trains from the west, as follows:

MAIL, every morning, except Sundays.
EXPRESS, every evening, except Sundays.
Both trains connecting at Fort Wayne with the trains on the Toledo & Wabash Railway, at noon and midnight.

There is *No change of Cars* between Chicago and Pittsburg, and but *One change* between Chicago and Philadelphia, or to New York via Allentown.

Woodruff's State Room Sleeping Cars

Are run on all the Night trains, and Baggage is checked through to all Eastern Cities and handled free.

To secure the shortest route, greatest comfort, and the *saving of Two Hours' Time,*

Ask for Tickets via the Fort Wayne Road,

For sale at the principal Ticket Office in the West; at the Company's Offices in Chicago, corner of Randolph and Dearborn streets and at the Union Depot, West Side, by
A. HOLLIDAY, *Ticket Agent,*
And at the Newhall House, Milwaukee, by
THOS. FORBES, *Ticket Agent.*

For further particulars apply to
B. F. PATRICK, *S. W. Pass Agent*, Chicago.
H. HENDERSON, *N. W. Pass. Agent*, Milwaukee.
WM. P. SHINN,
Gen Pass Agent, Pittsburgh Pa.

WAKELEYS & VILAS.

ATTORNEYS AT LAW.

OFFICE IN UNITED STATES BLOCK.

MADISON.....WISCONSIN

BOUNTIES and PENSIONS for Soldiers and their families promptly collected.

F. WAKELEY. CHAS. T. WAKELY. WM. F. VILAS.

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, MARCH 1, 1864. No. 3.

Wisconsin Sorghum Convention.

We present to our readers a condensed report of the Sorghum Convention which was held on the 3d, 4th and 5th of February last, at the new Capitol, in Madison. Representatives from every part of the State, from Ohio, Nebraska, New York, Iowa, Oregon, and Illinois made the attendance large, and added a degree of interest seldom if ever before manifested in such gatherings. The resolutions, as adopted by the Convention, present the concurrent opinion of a majority of its members, notwithstanding the opinions of the minority contained many valuable considerations worthy the attention of all growers of Sorghum.

It could not be expected that the Convention would give an elucidation that was perfect and complete in its character, respecting the culture and manufacture of Sorghum; but by the appliance of the several experiences, during the past few years, glean from its deliberations facts that will enable the people of the great Northwest to take one permanent and successful step in the cultivation of this valuable article, which is yet destined to become of great commercial value. The progress it has made and the success that has attended it are objects worthy of many deliberations. Until this has been, we can scarcely expect it to reach that maturity necessary to its successful culture. Its adaptation to the Northwest, the Convention has fully proven, and many other useful facts which are embodied in the following resolutions. The organization of the Convention consisted in the election of the following officers:

David Atwood, of Madison, *President.*

W. B. Maxon, of Walworth, *Vice President.*

O. S. Willey, and J. C. Plumb, of Madison, Secretaries.

The business of the Convention assumed the direction as proposed by a series of questions given in the last No. of the FARMER, which resulted substantially in the adoption of the following resolutions:

Resolved That it is the opinion of this Convention that high, dry and rich lands are preferable, for profitable cane growing, to low, rich lands, but that ordinary corn lands are generally safe for successful culture.

That it is the opinion of this Convention that it is the safest way, under all circumstances, to plant the seed dry and cover it very light, not to exceed one quarter of an inch in depth; and as early in the spring as the ground becomes sufficiently dry to warrant the hope of an early germination.

That we recommend the application of plaster, ash or lime, as a stimulus to early and speedy growth.

That this Convention recommend early and thorough, but shallow, cultivation, so as not to disturb the main roots after the cane has attained the height of two feet.

That it is the opinion of this Convention that for molasses, it is not absolutely necessary that the cane be fully ripe, but that for sugar-making it must be matured.

That when small fields of cane are to be worked up, and there is consequently plenty of time in which to do it, we would recommend stripping the cane.

That cane is frequently improved by laying some time after being cut; and that it can be safely kept in dry, sheltered places for many weeks without spoiling.

That when extensive crops of cane are to be grown, we recommend early planting of both early and late varieties, to give a succession of ripening, for convenience of manufacturing.

The Committee on Seeds reported nearly

one hundred varieties, and from their experience would give their preference to the Chinese. The Imphee and African mature a little earlier than the Chinese. They particularly recommend to cultivators that variety of seed that has been tested successfully in their neighborhood or latitude; that great care should be observed in the selection of seed, and plant none that has had any opportunity to hybridize with broom or other varieties of corn. Plant the seed that ripens first.

The Committee on Syrups and Sugars report excellent samples of both articles produced from both varieties, Chinese and Imphee. Beautiful crystalized sugar and excellent syrup, free from acidulous tastes, were before them. They remarked a great advancement in the production of sugar since the first introduction of cane.

Statistical Queries respecting Sorghum, being submitted to the members of the Convention, upon several questions, resulted in the following averages for the year 1863:

Cost to grow per acre	$13 00
Cost to manufacture, per gal	20
No. gallons produced per acre	84

A Committee for calling a Convention at a future time was named by the Chair.

After soliciting the Legislature to publish the report in full, for general distribution, the Convention, on Friday noon, adjourned.

REPORTER.

Hints for March.

Look over the FARMER for the winter months, and be sure that nothing important is forgotten, and, more than that, take care that nothing is neglected.

The winter will be likely to hold on pretty late, and, here and there, a farmer will find himself deficient of feed for his stock. Economy, in such cases, will become imperative; why not begin its practice now? Bring everything available into requisition, and take care that nothing be wasted. If hay is going to run short, straw, with an occasional sprinkling of weak brine, and (for stall or rack-feeding) of bran, will be relished, and answer a good purpose. Cows, ewes, and other animals about to come in with young, must have especially tender care.

Implements of every description, harnesses, wagons, carts, &c., should be put in order without further delay, by repairing and painting, or oiling.

Clover-sowing, if intended to be done on the light snows of spring, may properly be attended to this month.

Seed-grain and garden seeds, of the best kinds, should be secured. Hotbeds should be made, and, unless the spring shall be late, all vegetables, intended for early setting or planting, such as lettuce, early potatoes, &c., &c., may be started in the latter part of this month.

Scandinavia at the World's Fair.

Next come the nations of the North. Their trophies and courts entire suggest, at a glance, that we have changed our latitude, and are among a strange people.

DENMARK

Is the connecting link—her territory geographically between, and her people a mixture of Teutons and Scandinavians. To us, this link is also interesting on another account: the Danes are our ancestors, in part, and no little of the force and fire of the Anglo-American is traceable to those dashing piratical heroes who, a thousand years ago, effected the conquest of Britain, and established an empire under the lead of the famous Canute.

A very little kingdom is Denmark—scarcely more than one-third as large as Wisconsin, its provinces, Zealand, Bornholm, Jutland, Funen, and Langeland, Laaland and Falster, Schleswig-Holstein and Lauenburg, all told. Formerly it also included under its rule Norway, but the fall of Napoleon, whose ally Denmark had been, resulted in a curtailment of her territory by the cession of Norway to Sweden. Iceland, the Faroe Islands, and three small islands in the West Indies, (St. John, St. Thomas, and St. Croix), constitute her present colonial possessions.

Small in area and population, both, is Denmark, but, after all, she is something of a power among the nations. In the times past, Sweden, and even Russia, have taken rulers from her royal family, and, henceforward, England and Greece, and no knowing how many more nations of the Old World are likely to be directed by rulers with Danish blood in their veins.

Well, let us see what Denmark has brought to the Great Exhibition.

Wheat, rye, oats, barley, and other agricultural products of good quality remind one of the fact of its being pre-eminently an agricultural country. The rye is particularly worthy of notice, as being the grain from which most of the bread is made. The cereals are grown more in the Schleswig-Holstein, part of the kingdom than in the northern portion, or Denmark proper, where stock-raising and the dairy business occupy the farmers to a greater extent.

Mineral products are few in the country, their representatives in the Exhibition being simply a handsome display of earthen, porcelaine and amber.

The remnant of the once great forests of Denmark are suggested by fine samples of furniture; the habits of the people by the beautiful drinking horns and pipes—Teutonic symbols.

Fine furs and fur costumes from Finland, beautiful mats and robes of the skins of silver foxes, and most exquisite articles of female dress made of the down of the eider-duck, attract attention, and interest successive groups of curious visitors.

Hardware, surgical instruments, carving, silversmith's work, jewelry from antique designs, boot and shoe lasts, cooperage, musical instruments, a statue of the king, and paintings represent the mechanic and the fine arts; while specimens of books and other educational appliances call to mind the high progress made by the industrious, intelligent Danes in literature and science.

NORWAY,

Once a part of the Danish empire, then a province of Sweden, and now an independent government, though ruled by a sovereign in common with Sweden, since the overthrow of Bonaparte, presents features of great interest.

Lying in the same latitude with Siberia, Iceland and Greenland, and with nearly one-third of the whole country in the frozen zone, and consisting, moreover, for the most part, of a series of elevated plateaux and mountain ranges within the limits of perpetual snow, it has, nevertheless, a mean annual temperature corresponding with that of Wisconsin—a most remarkable proof of the influence of the Mexican Gulf stream, whose warm waters lave its western and even its northern shores, and thus temper the climate to this surprising degree.

A large collection of cereal grains, including good wheat, grown as far north as the 70th parallel, tells the story of climate better than we can describe it.

Norway has a superficial area of about 121,800 square miles, or 2⅛ times as great as that of Wisconsin, but is, nevertheless, said by her geographers to embrace not more than 1,060 square miles of tillable land in all its parts. Mountains or mountainous highlands, with sharp peaks shooting up sometimes to great heights, and lakes and morasses constitute the remainder. It must, therefore, require great energy, industry and frugality on the part of its people to secure and perpetuate that very considerable degree of prosperity to which they have attained. These traits are possessed by the Norwegians in an unusual degree, and it is because of them that a very large majority of the emigrants from that country to America take such high rank among the best of our citizens. Let them continue to emigrate. There are better opportunities for them in the Western World than they can ever hope to enjoy in the Old.

The specimens of grain have greatly interested me as well as a multitude of other foreigners from more southern climes who repeatedly ask the question, "How, in the world, can they ripen so far north?" The

reason above given, in the allusion to the Gulf Stream, explains it in part only. The length of the days in summer is another reason. For instance, at Finmarken, which lies under the seventieth parallel, the sun never sinks below the horizon from the 24th of May till the 19th of July. This continual shining of the sun for many weeks without an intervening night, of course, gives rapidity of development and ripens grains and fruits that would not otherwise mature.

The forest timber of Norway is likewise represented—Scotch fir, Norway spruce fir, elm, oak, beech and birch. Other varieties of wood grow there, but none others constitute forests.

Here also are the skins of animals—prominent among them the beautiful steel-grey skins of the reindeer, with the high, branching antlers and head attached. Fur garments, too, and effigies of men and women of the far north, all muffled up in their furry costumes; portraits of royal dignitaries, and paintings illustrative of Norwegian scenery and social life; Norwegian fire-arms, implements, cutlery, and hardware; silver work, scientific apparatus, and scientific works, are also here.

Dr. Schubler, naturalist and author, is here to show these products of the industry and genius of his people, and to him I am indebted for many courtesies.

At last comes

SWEDEN—

Land of heroic history, of science, arts and literature. In the early part of the 16th century Sweden was under the rule of Denmark; but she recovered her independence, and has since made steady progress in all the essentials of civilization, developing her natural resources to a remarkable degree, and giving to the world names among the most famous of modern times. Gustavus Adolphus, Charles XII, Emanuel Swedenborg, Linnæus, Berzelius,—what names are higher on the scroll of fame? Aye, and the Ericson of our own time,—the revolutionizer in the method of naval warfare—the originator of those strange, mighty Monitors that have placed us, at once, in the advance of all nations, on the sea—is he not a Swede?

But let us not forget our object. We are in the Swedish Court of the Exhibition Palace.

About us lie rich products of the miner's, the farmer's and the mechanic's art. Fine samples of the magnetic and other ores from which the celebrated Swedish iron is manufactured. Here are stacks of it in the "pig," and every variety and form of the manufactured metal. Steel, cutlery of the finest quality, cast iron ware, including stoves and many other manufactures in iron.

Copper is here of superior quality, and many manufactured articles of interest. Zinc, too, and even silver, with their manufactures. All these serve to give one some idea of the importance of the Swedish mines.

Here, also, are rough woods of various kinds, in log and plank, illustrative of those great forests which lie in the southern part—some of them covering an area of eighty miles by twenty. Oak and beech predominate, but there are also pines, firs, and other woods.

Worked woods and beautiful specimens of inlaid funiture show the skill and artistic taste of her mechanics.

Until quite lately, Sweden was obliged to to look to other nations for much of her bread; but under the stimulus of wholesome laws and institutions established for that purpose, her agriculture has made rapid strides, and now furnishes her people with the cereal grains in sufficient quantity to meet the demand. Rye, barley, and oats are most grown; wheat being confined to, comparatively, a few districts. The whole arable land is said to scarcely exceed four thousand square miles, though that area is gradually extending, under the influence of improved systems of agriculture.

The principal animals reared by the Swedish farmers are a small breed of cattle without horns, sheep of inferior size and with coarse wool, and reindeer, which in the north are often kept in large herds for dairy purposes, and which likewise are pretty much relied on for the service in other countries

performed by horses. Skins of these representative classes of domestic animals are here.

Flax and hemp, and their manufactures; silk and cotton fabrics of excellent quality; these and other articles in large number and variety show the degree of progress made in this important department of industry. Earthen ware, leather, furs, hair, feathers, and their manufactures are full of interest.

In the department of Operative Machinery we shall find several rotary and other engines, steam hammers, nail, and rolling machines, &c.

The fine arts are likewise represented. Some of the oil paintings are highly creditable to Swedish genius.

All in all, Scandinavia has well filled her place in the World's Exhibition. When the nations gather again, these people of the Polar Zone will undoubtedly have made yet greater progress than in the last two decades.

The Modes of Sowing Wheat.

These are of three kinds—sowing broadcast, and harrowing it in, sowing the same way and plowing it in, and drilling it. I will not consider them separately, but refer to some of my farming experience and observation to set forth their relative merits. The first year of my farming I had twenty acres put in wheat, which was sown broadcast and harrowed in about the 1st of September. The last rain previously was on the 20th of August, and the next was on the 20th of October. The soil was good, tolerably well broken up, and harrowed. The seed commenced to sprout, some came up, when the drought checked the further growth. I examined its condition every day, and soon found insects preying on the sprouted grain. The worst of these was the small, red ant, which eats out the softened germ, attracted apparently by the sugar formed from the starch. When the rain fell, in October, the grains uninjured came up, but there was not one in twenty of what had been sown. The twenty acres yielded 109 bushels.

In the same fall, and about the same time, a farmer of this county broke up a small field; and with the first drill that came here he drilled in a portion, sowed another broadcast and plowed it in, and the other portion he harrowed in. The drilled wheat came up slowly, and grew slowly but steadily. Not many grains failed to come up. That plowed in came up in irregular patches, and in some places apparently in rows, where it had been covered deepest. It suffered much from the drought, and much never came up at all. But little of that harrowed in came up, and seemed to yield to the drought where it did. When the rain fell these portions retained their relative positions, and the yield at harvest was in accordance with their fall growth.

Again: some years after, when drills were becoming popular, there occurred one of those freezing-out winters that destroy our clover and wheat fields. A neighbor who had put in well a field of good soil, with wheat sown broadcast and harrowed in, had it completely frozen out. He remarked to me that he could well have afforded to have purchased a drill to put it in, and then to have burnt it, rather than sustain the failure from broadcast sowing. I examined that spring, with much care, many drilled fields and many sown broadcast, in some of which the seed had been harrowed in and in others plowed in, and invariably found the drilled wheat firmly fixed in the soil, with no roots on the surface, except here and there where a wash had carried the top soil away. But in the other fields there were but few plants that had not many roots on the surface; most of them had no root in the soil; many but a portion of a single root. In pulling the drilled wheat it was firmly fixed, the crown close on the surface soil, whilst the other yielded, showing the crown above the soil, with a portion of the roots below it exposed. This was the case with the best of the plants.

To such facts I will be told (for I have often been) that one of the best crops of wheat raised by the farmer answering me was from broadcast sowing. I grant this; but under what circumstances was it done? When the soil was at its best, when no drought occurred in the fall, and no freezing out in the winter. Why recollect the one successful crop and forget the many unsuccessful?

Let us now examine into the causes of this great difference between the drilled and broadcast-sown fields. In making my examination I dug up some of the drilled plants, and some of the best sown broadcast. The secondary roots of the drilled plants were double in number compared with those of the broadcast sowing, much longer, with a much greater number of fibrous branches, and with an inclination deeper in the soil. These are the facts, and the philosophy of them will be seen from what I have said on the germination of the seed and the growth of the plant. Wheat put in with a drill is sown at a depth of about three inches. The seeds are placed regularly; the space for the growth of each plant is equal. If a drought comes on, as it so often does in our falls, the grain is so far down that it is not much affected. Plants have two sources from which they derive the moisture necessary to their growth in time of drought—that which descends through the atmosphere in the fall of dew, and that which rises up through

the subsoil. Rain is the common source of both these supplies. When drought parches the surface soil, the dews are of little or no consequence to the roots of plants; its purpose is, in its daily evaporation and nightly condensation, to envelop the blades or leaves and stems with a moist atmosphere The sources of their evaporation are supplied in droughts by the evaporations of the subsoil moisture through the leaves of plants and trees and from the surface of the ground. Their subsoil moisture is drawn to the surface by capillary attraction, and the heated and dry condition of the surface, air and soil. As it ascends, the roots of plants lay hold of it and carry it to the stem, branches and leaves. An observation of twenty years, and constant examination during the years of our great droughts of 1854 and 1856, convince me that this is the precise office of dews and subsoil moisture. A law of the growth of the root is that it always turns to the source of its nutriment. Now the grain of drilled wheat being deposited as deeply as its germination will allow, its roots, both the primary or tap root, and the secondary, are beneath the influence of the surface droughts, and, receiving their moisture from the subsoil, they turn toward it. Hence the fact of the roots of drilled wheat having a downward inclination. The wheat covered in by the harrow lies so near the surface that a drought soon dries the soil around it, stopping the growth at all stages. The roots get their moisture from the dews at night, meeting the evaporated subsoil moisture at the surface of the ground, and the roots, finding their chief supply at that point, incline to the surface. Hence they are checked in their autumnal growth, and are soon laid bare by the freezing of winter.—*L. Bollman, of Ind., in U. S. Ag. Rep.*

From the Christian Advocate and Journal.

How to Invest.

Every one having funds in his possession naturally feels anxious to put them to the best account. But how to do it is a difficulty. Stocks are very high. Share in cotton mills are nearly a hundred per cent. above par, and the mills not running a spindle. If cotton should continue to be difficult to get, these shares would only represent so much brick, mortar, and water power, that no one desires to use. Railroads and telegraphs are doing a splendid business. They thrive by war and its measureless transportation. Hence their shares are high. But no one cares to pay one hundred and twenty-five to one hundred and fifty for that which a year hence may be twenty-five to fifty. Shall he invest in land? It is not likely to take wings, to be sure, but its taxes are heavy and its income slow. There are government bonds. They are doubtless all right, and the interest sure. But there is a kind of investment for a portion of every man's funds, believed to be better than any or all of these. It was recommended by Franklin, that most excellent embodiment of practical economy, when he said, "Empty your purse into your head, and no one will ever be able to get it away from you."

We believe that for real practical economy this is the best investment. Daniel Webster being asked if there was room in the legal profession for any more, replied, "Yes, plenty of room higher up." The upper grades are never full. These are the most remunerative. He that can reach them finds the richest rewards. In our land they are within the reach of every one. Twenty years ago a machinist's apprentice carried all his earthly possessions in a very small box into Worcester, Mass. He did not appear remarkably promising, and his companions were not slow to remind him of it. But he patiently put gains into his head. Slowly his mates came to regard him as their equal. Before they had fairly settled that idea he had bought out the whole concern, was one of the largest manufacturers in the city, and they were his employees. He made good investments.

Forty years ago a lad toiled for his daily bread in the forests of the West. There were scarcely ten books within as many miles. Yet he put investments into his head. He had no genius, but he had in its place many disadvantages. He had no wealth. He was not prepossessing; he was extremely uncouth. But he put his gains into his head, and to-day he holds the highest place of any man upon the earth.

[Other illustrations are given by the author of the article, but we have no need to put them in print. No sane man is so blind as not to have discovered by his own observation that intelligence is always a potent helper—that knowledge is power.—Ed.]

It offers to overworked toilers a partial or total exemption from the severity of their present lot. Skilled handiwork is always most remunerative, and there is always "room enough higher up." If men are anxious to employ their money to the best advantage, and make their capital of strength and toil yield the best results, they should remember that they have a mental stock and a capital of capacities which should be made to yield the largest possible interest. That mental capacity is one of the God-given talents, and he requires its use. He wants to receive his own with usury, and if there be no actual gain amid such opportunities as he gives us, we may learn our fate from that of the wicked and unprofitable servant who hid his lord's talent in the earth. There is responsibility as well as inducement, peril as well as profit, connected with this capital of talent.

The value of gold is not diminished by its being unemployed, but mental wealth created by effort perishes if unused. While thinkers grow richer every year, the mere toiler finds his capital of strength wasting, a poverty of power settling down upon him. A mental poverty has already settled. He has no accumulations of knowledge to enrich his last years. He has no habit of getting information; the age gets ahead of him, his earlier acquisitions are forgotten, and a dreary night of imbecility or despair shuts down over his declining years. The word has gone forth, "Take, therefore, the talent from him." All who acknowledge any obligation to God should hear his voice to them—"Get wisdom."

Does any hard worker declare that the necessities of his daily life forbid mental culture? In face of the examples quoted, and thousands of others, the statement cannot be maintained. An hour each day for study, not mere reading of news, but *study*, will make almost any man wise. Many of our finest intellects, in their unabridged leisure, allow themselves but three hours mental labor in a day. One hour a day will give a cultured man an insight into a science in a month. One of the intelligent men of Boston, a daily worker at the bench, once pointed out to a professor of theology and a doctor of divinity, who called to oversee a little job, the wrong premises in his recent work on Swedenborgianism, and showed the positions from which it could be more successfully assailed. The doctor freely acknowledged his obligations.

In fact, the working man has some peculiar advantages for culture. He has time to fully digest and assimilate his mental aliment. It is not what we read that makes us wise, but what we gain. In the long hours of toil there is time to make the thoughts we have read thoroughly our own. They are turned into power, they become parts of us, not mere attachments that the wind blows out of sight or strips off entirely, or that become covered up with other like accumulations, till nothing can be found, and the poor little mind within, weakened by its burdens, is unable to use the thoughts of others, or originate any of its own. Memory will be strengthened, not crushed. Reflection will evolve great principles, and discover grand applications that would be lost in the hurry of mere reading.

The very mastery of ideas begets an everywhere visible confidence of overcoming all difficulties. Man goes about with power to conquer written in his very substance—a priceless recommendation to one seeking employment.

The Farmer's Workshop.

The neat farmer has not only his neat woodhouse, well filled with dry, sound wood; but he has his workshop, where he keeps his carpenter's tools and timber for use. This is not full of chips, save when he labors. It is neatly swept, and every tool in its place; and he knows, though in the dark, where to find it. You can see at a glance that he takes pride in it. And his tools are in order. He lends; but not to every one. This is right. Some people are as careless about other people's tools as their own, and a man does not want to have a thing destroyed. The sluggard, the slattern should not be trusted too far, or he will make a sluggard of yourself. Bad neighbors at the best are a pest, and the less you have to with them generally the better. At least, keep your tool shop in order.

"Well, now! there is no use; I cannot keep

my tools in order; others will have the handling of them."

This shows you lack grit. The right kind of man *will* have his premises—all relating to them—in good order, though he should sacrifice the good will of the slovens. The farmer's workshop is often a place to lounge in, in idle weather, when the little tinkering is done by the owner.

[From the U. S. Agricultural Report.]

The Culture of Sweet Potatoes.

BY J. C. THOMPSON, TOMPKINSVILLE, N. Y.

Attempts to raise sweet potatoes have often been defeated by excessive care in preparing the ground, or in not knowing how to preserve them after they are dug. When they are planted in too deep a soil, the tuber runs down too deep and becomes watery and insipid.

PLANTS OR SLIPS.

About the first of April—or later, perhaps, in locations north of New York—put the potatoes in a hot bed. If they are large, split them lengthwise, laying the flat side down. They may be placed so near as almost to touch each each other; then cover about two inches deep with a light rich compost made of fine sand, manure, and good soil or leaf-mould from the woods. When the sprouts push above the ground add an inch or so of the compost. Water occasionally with warm water; keep the bed warm at night, and on warm days give them air and sunshine to render them hardy. When ready to set, the sprouts may be pulled off, or the potato may be lifted out and the best plants selected and the potato returned to the hotbed. A bushel of seed will produce from three to five thousand plants, and every thousand plants which are set should produce forty bushels of potatoes.

PLANTING THE GROUND.

A warm, sandy loam is best adapted to the culture Mark spaces three feet apart, merely scratching the ground for the rows, which should run north and south. On the marks spread barnyard manure with a fork; then turn up the earth with a plow from each side towards the manure, and form a ridge about ten inches high, and finish the ridge with a rake. The base of the ridge, which should be a foot in width, should not be disturbed with the plow. The top of the ridge when finished should be flat and three or four inches in width.

Plants should be set as soon as all danger from frost is past. I have obtained fair sized potatoes when planted the 1st day of July, but I do not advise late planting.

PLANTING ON SOD.

Sweet potatoes will grow more chubby when planted on sod than when planted in any other way. Strips of sod eight or ten inches wide may be laid in line on the surface of the ground with the grass side up, manure strewed on them, and the earth turned up on each side so as to form a ridge, as directed above; or a piece of pasture or meadow may be selected, and the turf used as the base of the ridge to be formed by the plow. In either case manure or rich compost should be used; for, unlike Irish potatoes, these are not injured, but are greatly benefitted by manure.

SETTING THE PLANTS.

A marker should be used to prick off the spaces for the plants, sixteen inches apart A boy is then able to drop the plants in the right places, and the hole is made for setting them. The plant should then be put in the ground down to the first leaf, and the earth pressed gently around it. Care should be taken to set the plants when the ground is moist, and, if possible, on a cloudy day.

AFTER TREATMENT.

Keep the weeds subdued. Use a hoe or rake, raking upward towards the plants. Where the plants run down the ridges, lift and lay them on the top. Do this several times during the season, in order to permit the sun to act upon the ground.

GATHERING AND PRESERVING.

For early use feel in the ridges, and nip from the stem those that are fit for use, leaving the others to grow. For winter use, after the first frost select a dry, clear day. Cut the vines with a scythe, leaving the stem to which the potatoes are attached three or four inches long to lift them by. The vines are readily eaten by cattle. Use a fork for raising the potatoes; lift them by the stem, and lay them on the ridge to dry. In a few hours they will be ready to pack. Prepare plenty of dry, cut straw, (old straw is preferable,) and take straw and barrels or boxes to the field. Select the best potatoes, handling them carefully, without bruising them. Put a layer of straw at the bottom of the barrel, and then alternate layers of potatoes and straw until it is filled. The potatoes should be placed close to each other, one at a time, and handled as carefully as eggs. The barrels are then to be moved to a dry room or cellar where there will be no frost. If they are placed in a cellar they must be raised from the floor, and must not touch the wall. Keeping warm and dry is the secret of their preservation. They will keep six or eight months and improve in quality. From one plot of ground 89 by 100 feet I gathered, in October last, 48½ bushels.

WOOL.—The history of the growth of wool is very curious. Fifty years ago not a pound of fine wool was raised in the United States in Great Britain, or in any other country except Spain. In the latter country, the flocks were

owned exclusively by the nobility or by the crown. In 1794, a small flock was sent to the Elector of Saxony as a present from the King of Spain, whence the entire product of Saxony wool, now of such immense value. In 1809, during the second invasion of Spain by the French, some of the valuable crown flocks were sold to raise money. The American consul at Lisbon, Mr. Jarvis, purchased fourteen hundred head, and sent them to this country. A portion of the pure unmixed Merino blood of these flocks is to be found in Vermont at this time. Such was the origin of the immense flocks of fine wooled sheep in the United States.—*Ex.*

Agricultural Societies—their Organization, Uses, and Abuses.

There is no fact relative to agricultural societies that has such a direct and important bearing upon an agricultural community as the organization of an Agricultural Society. It has proven itself subject to many abuses. Bribery too often proves its motive power, and in each case it becomes contemptible to the true and only supporters. The vital part of an agricultural society, as in all other successful institutions, is in its organization, the very foundation upon which it must rest. The errors and abuses rest, as too few are willing to concede, in the representation that forms the organization. In almost every instance it is composed of those persons who have no direct interest in agriculture as a means of honorable subsistence, but of those who are professionally out of it, and who practically look upon it as a low calling. There remains not a doubt that our nationality, not only at home, but more emphatically abroad, rests upon the success of our agricultural interests, the honorable and equal distribution of its different departments of industry. And how can this be most perfectly, energetically, and successfully reached? We answer, *in its organization*, having its organization composed of those men whose direct interest, dependence and *business* is agriculture; or, in plainer terms, composed of farmers—of men that have been and are hard-working, experimental, actual farmers, and the corner stone of success is laid. Let the farmers attend the first meetings, and elect the intelligent ones of their number to take care of the interests of their business, and their societies, instead of being nuisances under other control, will be honorable and profitable institutions, fostering industry and adding to our national wealth.

The uses of agricultural societies are as varied as their composition should be. The interests of every department, however small in minutiæ, in the aggregate form a mighty motive power; when applied, they are strong in incentives, and influence the farmers to nobler and more earnest exertion, when properly organized; committees having a positive knowledge of the business given them contribute largely to the general fund of information, and when the society has held its Fair, all know more of the best method of managing farms, the best culture of blooded cattle, grooming horses, the improvement and culture of sheep best adapted to its locality; the proper method of producing the best grains, grasses, roots, and the manufacture of the important sorgo. All are better for having more useful information; and that community has taken one safe step in lifting farming to its place among the general sciences.

Horticulture, which makes our homes a little paradise, changes the barren soil to gardens of beauty, blossoms and fruit. It makes happy hearts in the domestic circle—the feelings of endearment strengthen, the son no longer hates the place he's asked to love. Its virtue, coming from the broad field, the garden, and the hearthstone, where God's beauty is, wins him from the corrupting vices of high social life, makes him a man, nature's man, nature's nobleman. The cultivation of the useful, which is the beautiful, if not in its form is in its adaptation, makes an insurmountable barrier to error. We become better for living, while the beauty of our surroundings lifts our souls to highest contemplation, to prayer and then to praise.

The strong arm of war and broad battle-ax lie paralized and rusting, while their counterpart is polished in the furrow, or skilled in the adaptation of inventive genius.

We loathe the abuses of agricultural societies as we do the serpent writhing in its slimy folds. Favoritism is a reproach, monopoly a poisonous sting. These two go hand in hand, and are sure destruction to any organization. Give the poor man with the product of his own hand, his due, rather than transfer it to the rich man. He has himself in his product; he has himself in his invention. To the possession of that energy, that inventive skill, paltry gold should bow. He is richer than the miser, for he has come nearer the final cause of his being—he has exercised his faculties, and made himself a man. These abuses may be overcome, these uses may be reached, when the farmer, knowing his rights, dare assert them. Until then you might as well try to reduce our cursed and intestine enemy with compromises and concessions, as to make your voice heard. Until then farming will be a low calling, and you will be a farmer still.

F. M. G.

Tobacco Culture.

We recapitulate several points upon which experienced growers strongly insist, because they express conditions of success in cultivating tobacco.

1. The land must be in good condition—well enriched with manure. It must be plowed in the fall, and again in the spring, and thoroughly pulverized.

2. The plants in the seed-bed must be thoroughly weeded and guarded against the fly, and so thinned out as to acquire a hardy growth before being transplanted.

3. During the season for the ravages of the worm the plants must be examined twice each day for the purpose of destroying them.

4. In curing, the leaf-stalk must be perfectly freed from moisture.

5. We add: farmers who are commencing the culture of tobacco should avail themselves of the services of an experienced man who can supply that knowledge which cannot be learned from books

It may be proper to say a word in regard to the profit of the crop. In the first place, if the crop is grown on one field but for a single season, it leaves the land in good condition for any crop the next year. It is highly manured and free from weeds

It may be followed by wheat and then by grass, and by this rotation remunerative crops may be secured without exhausting the soil. The worn out fields in some of the tobacco-growing States should be monitory to cultivators, and teach them one of the most important lessons of modern tillage, viz, the necessity of a proper rotation of crops.

Next, a crop of tobacco successfully grown and cured commands a ready sale at from 12 to 15 cents a pound. At this present writing, owing to the peculiar circumstances of the country, the price is enhanced. If unfortunate in the curing, the owner will not realize more than half the current price.—*U. S. Ag. Report* 1862.

[From "The Agriculture of Maine," in U. S. Ag. Report.]

Maple Sugar and Syrup.

The maples which abound in our forests are annually made to contribute a share to the means of living, and how large a share will be seen from the fact that 306,742 pounds of maple sugar were made in 1860, no mention being given of the amount of syrup also manufactured; but inasmuch as this is the form in which the article is mainly consumed, the actual amount of sweetening manufactured will largely exceed the above estimated quantity.

The age of the trees is not material, provided they are of proper size, as it is evident that a very small tree would be more injured by the process of tapping than a larger one. Trees from ten inches to two or more feet in diameter are of the most suitable dimensions. Tapping should be done with care so as not to injure the tree, and it has been found by repeated experiments that a half-inch hole will yield as much sap as a larger one, the flow in all cases being proportional to the depth of the hole. After the tree has done running, the hole should at once be stopped up. It has been estimated by some that each tree, taking the average together, will yield from five to six pounds of sugar during the season, and others consider two or three pounds as much as they will average. Probably the correct amount lies between these extremes. Formerly the vessels to receive the sap were troughs made of poplar or bass, and these were succeeded by sap-buckets, made somewhat in the form of pails, and unpainted. Tin vessels are light, easily kept clean, and are desirable on many accounts. They are used more extensively than heretofore. A good pan for boiling the sap is made of sheet iron, by nailing the iron to plank, so that the iron shall form the bottom and ends and the plank the sides, the sheet iron being secured to the plank by two rows of closely driven nails. Eight feet long, four wide, and six inches deep, are good dimensions for this article, and if the arch or fireplace be made narrower than the pan, so it can be placed over it, it will be found a most useful arrangement for boiling the sap. In making good syrup the sap should be reduced to about one-thirtieth of its bulk,

then strained through flannel, and left to cool and settle for about a day. After this, place it in the boiling pan, and add to every gallon one beaten egg and a gill of milk to clarify it, care being taken that it does not boil, till the scum has risen and been skimmed off. Then boil carefully until it will harden by placing it in cold water, when it should be poured into vessels and the cakes placed in a box to drain. To have the sugar perfectly white, lay a few thicknesses of flannel on the top of the cakes while they are draining; these absorb the coloring matter, and by having them washed daily in cold water the coloring matter will wash out.

Two men will take care of and do the work necessary to be done to three or four hundred trees. The work of manufacturing sugar and syrup takes place at a season of the year when other active farm labor has not been resumed, and thus affords a good opportunity for performing one of the pleasantest and most social parts of farm work.

STOCK REGISTER.

Pleuro-Pneumonia.

A LETTER TO HIS EXCELLENCY, JOHN A. ANDREW, (OF MASS.) BY CHARLES L. FLINT, SECRETARY OF THE BOARD OF AGRICULTURE.

The above is the title of a pamphlet of fifteen pages, just published by the Massachusetts Board of Agriculture. The subject is one of very great importance, not only to the New England public, but likewise, and, we may say, especially, to the agricultural public of the Western States.

Mr. Flint has recently traveled extensively in those European countries where the disease discussed prevails to so great an extent, and he rightly speaks with the authority of one who knows whereof he affirms. The following startling facts, gleaned from his letter, are worthy of careful consideration by the farmers of the Northwest:

The most moderate estimates fix the loss by pleuro-pneumonia alone, in the British Isles, at ten millions of dollars a year. The value of cattle, lost by this disease, amounts to two or three times the value of all the cattle imported.

More than a million head of horned cattle died of pleuro-pneumonia in the six years ending 1860, of a value of at least sixty millions of dollars.

Immense amounts of diseased meat are constantly offered and sold in the markets of England. More than nineteen tons were detected in the London market in one week, in the summer of 1862. One Inspector (of markets) said that if he were called upon to exclude from market animals affected with contagious diseases, he must exclude two thousand animals out of Islington market on many a Monday morning.

The effects of this diseased meat are already discoverable in the impaired health of those who consume it.

For a time, in England, Insurance Companies, stock and mutual, some of them with two and three millions capital, took risks. But, notwithstanding their rates were steadily increased until they reached a very high per cent., they all failed in succession, until, at the present time, there are no such companies in existence.

The disease is highly contagious. The most distinguished veterinary sargeons in the world now agree on this subject.

It still prevails to some extent in Massachusetts. On this point, Mr. Flint remarks:—"The disease still exists among the herds of some twelve or fifteen towns of this Commonwealth. The importance of an early consideration of the facts connected with its introduction and spread can hardly be overstated, whether we regard it in a pecuniary or in a sanitary point of view. If we are to give up all effort to eradicate it, we must settle down into the conviction that we shall soon find ourselves in the condition of those countries in Europe where this disease exists, and from which it is now probably too late to attempt to get rid of it, owing to the fabulous amount of the cost."

Again he says, in concluding his discussion of the contagiousness of the disease: "If the community still sleep over this danger, I shall have the melancholy satisfaction of finding, at last, a unanimous public sentiment on this subject. But it will be too late. The result

is inevitable. Neglect can and will only lead to unmitigated evil. If the people are willing to drink the milk of cows rotten with disease, and to give it to their children, as they have done in Boston, if they are ready to accept the alternative of having the beef of diseased animals brought upon their tables, I have no more to say. But if they desire to avoid that alternative, they will have to act promptly and strenuously for the eradication and stop of pleuro-pneumonia."

It is to be hoped that this appeal to the legislators of Massachusetts, through the Governor of the State, will be heeded, and that thorough measures will be promptly adopted to entirely eradicate the disease. What millions of dollars worth of property would it rob us of in the Great West, if it should once fairly get hold of our cattle!

In view of all the foregoing facts, we cannot too strongly urge upon our farmers who import stock from the East, or who buy of those who do import, the great importance of being sure that the stock they purchase is perfectly healthy, and free from this dread contagion.

Salt for Cattle.

The following extracts are taken from a prize essay by Dr. Tression, lately published in the Mark Lane (London) *Express*. Read them:

The use of salt in the food of cattle must not be looked upon as a direct producer of flesh, so much as a necessary element of the economy, without which animals are apt to perish from disease, but with which the body is kept in a healthy and normal state. Not many years ago, a German agriculturist, Uberacker, brought forward an experiment which is in direct accordance with this opinion. Wishing to obtain some exact notion of the influence which salt exercised upon his sheep, the flocks of which lived in a low, damp pasture land, and received habitually a certain dose of salt, he fixed upon ten sheep, and struck off their usual allowance of salt. This remarkable experiment was continued for three years, with the following results: In the first year five of the ten died of rot and worms; in this year the remainder of the flock, 450 head, lost only four sheep. The second year a new lot of ten sheep, deprived of salt, lost seven individuals; the remainder of the flock, 364 head, lost five only; a little later the other three died, also from diarrhea. The third year was very rainy. Sixteen sheep were selected and deprived of salt. The whole of them died, in the course of the year, of rot and vermicular pneumonia

In the Brazils and Columbia, flocks may be annihilated by being deprived of salt. M. Garriott, a member of the agricultural society of Lyons, assures us that the milk of cows subjected to a daily allowance of salt is richer in butter and cheese than when these same cows are deprived of salt.

Sir John Sinclair, to whom agriculture owes much useful information, has observed that the habitual use of salt has a marked influence in improving the quantity and quality of sheep.

Many English agriculturists have proved by direct experiments that a regular distribution of salt to cattle is especially useful in preventing hoove (meteorization) caused by feeding cattle with leguminous vegetables. And there exists no doubt among those who have tried it, that when employed in proper quantity, it increases the appetite, stimulates digestion, keeps up the normal supply of salt in the blood, improves the wool, or hair of the cattle, prevents disease, and, moreover, enables the agriculturist to fatten cattle upon food which they would not otherwise enjoy, without it were previously mixed up with salt.

But there is another important consideration with regard to the regular distribution of salt to cattle, namely, its influence in preventing disease. Its daily use becomes of serious consequence when flocks and herds are menaced with those epidemic attacks which so frequently ravage a whole country at once, when a proper use of salt would either prevent them entirely, or at least reduce them to less disastrous proportions. During one of these epidemics, which sprang up about the year 1840, in the east of Europe, the almost wild cattle of Uharine, Hodolia and Hungary, were struck down in much greater numbers than those of Silesia and Bohemia, where the cattle-breeders habitually distribute salt to their beasts. Advancing towards the west, this scourge diminished in intensity, and finally ceased to show itself in Germany, where particular attention is bestowed upon cattle, and where salt has been for many years constantly employed.

In Great Britain, in the best farmed districts, we find the allowance of salt oscillating around the subjoined figures, taken as a centre of basis:

ALLOWANCE OF SALT PER DIEM.

Calf, six months old	1 oz.
Bullock or cow, one year old	2 oz.
Oxen, fattening	6 oz.
Milch cow	4 oz.

Horses.—It is generally admitted, whatever salt forms habitually a portion of the horse's diet, that this animal amply repays the slight

additional trouble or expense thus incurred. To mix salt with the food of the horse, colt, ass or mule, is a frequent practice in England and America. In these countries the usual allowance for a full grown horse of middle height is about two ounces per diem. In Belgium the quantity of salt appropriated to a full-grown horse by the government is little more than one ounce per diem.

Sheep.—The Romans gave to their flocks of sheep, every fifth day, an allowance of salt amounting to about half an ounce per head; and this is precisely the quantity which is employed in England and Saxony daily for sheep full grown and ordinary size. Numerous experiments have proved that salt is more beneficial to sheep than to any species of cattle.

Pigs.—The best proportion to adopt as a basis appears to be, two-thirds of an ounce per diem for full grown pigs.

In administering salt, unless it be used as a medicine, the more intimately it is mixed with the food, the better. This is not an easy matter with fodder, especially that which has been salted to preserve it, in which case we must endeavor to make a rough estimate of the amount of salt in a given weight of fodder, in order not to administer an injurious excess. In farms where oil or rape cake is given in powder, this being rather an indigestible food, the allowance of salt should be mixed with it in preference to any other fodder.

It should be borne in mind that an excess of salt is injurious to any animal; and that is why the preceding figures are given as a practical guide. An excess of salt produces irritation and inflammation of the mucous membrane, and causes several kinds of skin disease, especially in sheep. With horses an excess of salt has been known to produce dysentery, and in oxen diseases of the blood. Salt should never be given to cattle when a deficiency of food does not enable them to receive abundance of nourishment; in which case we excite appetite without satisfying it, and the animal loses flesh rapidly. Salt is to be prohibited, also, whenever congestion of any important organ is observed, or where we have perceived inflammation of the bowels. In such cases we must not be guided by the instinct of the animals themselves.

In some diseases of the digestive organs salt has proved beneficial. Thus, in cases of rot of the liver, accompanied by loss of appetite, paleness of the membrane, swellings under the throat, avoid ground which communicates the rot, and give the sheep five grains of iodine and half an ounce of the spirits of turpentine twice a day, and let them have free access to salt. And again for the disease called "red water," a species of dropsy, give liberal supplies of food, a dry resting place, and rock salt.

Considered as a medicine, salt purges animals at the following doses:

Horses	8 to 10 oz.
Oxen	10 to 16 oz.
Sheep	2 to 3 oz.
Pigs	2 to 3 oz.
Dogs	1 to 2 oz.

It becomes a poison at the following doses:

Horses	2 pounds.
Oxen	3 pounds.
Sheep	6 to 8 oz.
Pigs	4 to 6 oz.

The Lambing Season.

There is no month of the year in which so much careful management should be given sheep as during this month. The lambing season generally begins now, and the sheep should receive every care that can be given to make it a successful time in rearing lambs. With sheep themselves there is an instinctive preparation for this time, and the farmer, for whose benefit they are given, should watch every opportunity to assist them in their selections of food. Of course, each farmer should know when his sheep will begin lambing, for this is important, and preparations to this end should be made without delay. The very important treatment of separating the rest of the flock should be made with care, before they are too forward, as every handling at that time is injurious. A clean, dry pen or yard, with good cover and plenty of water, should be made for them, so that they will not be in a strange place when the pains of bearing young begin.

Their food should consist of clean hay—clover is best—with a small quantity of roots, so as to prevent costiveness, but not so much as to increase the secretion of milk, for such treatment tends to cake the udder, and oft times make the mother refuse to allow her lamb to take food. This is true in most cases of young ewes. If they have been from the ground for a long time, and had but dry food, a quantity of hemlock or pine browse should be given them, and a mixture of salt and ashes, five parts of salt to one of ash, which should be given every five or six days. Salt is necessary to give good digestion, and the ash furnishes the material which is, in but small

quantities in their hay or straw for the feeding or formation of bone; both, combined with a privilege of clean hay to eat as often as they desire, tend to give a strong, healthy tone to the system, so necessary at this season. They should not be handled, nor at the lambing hour should they be watched, for they will often delay it until it proves fatal to them. The lamb should have sufficient time to try for itself to get food. If it does not succeed, carefully catch its dam and assist it. The ewes should not be fed with large quantities of milk-producing food immediately on lambing, for it tends to increase inflammation and, instead of being a benefit to them, it seriously injures them. If the udder of the ewe be covered with wool or tag-locks, this should be removed, which serves two purposes: first, to allow the young lamb to easily obtain its food, and it lessens, in a very great degree, the chances of the lamb's getting wool in the stomach, which is almost sure to produce death.

After lambing, roots of any kind should be given, and bran or ground oats. There is a double necessity for water at this period, for, from the dry food it is next to impossible to obtain the proper quantity of milk for the lamb.

If you desire a fruitful season with your sheep, too much attention cannot be given to your ewes in giving them the proper food, a dry pen, and warm shelter, pure water and salt, keeping them from cold storms and exposure. They will doubly pay you for all the care and attention you may give, and make you better satisfied with yourself. F. M. G.

Determining the Age of Animals by their Teeth.

Observation has proven that the ages of animals, especially the domestic ones, may be readily determined by their teeth, up to a certain age, after which time it involves considerable guess work. This guess-work begins at different ages in different animals, as we will show.

At the birth of a lamb, of a natural period of gestation, we find two small teeth in the centre of the lower jaw, called milk or lamb teeth, or incisor teeth. Three couples follow at an interval of about one week, until the set is complete. The eight incisor teeth remain until the age of one year, (this shedding is modified by keeping), when the two centre ones are shed, and their place is filled by two large broad teeth proper. At the beginning of the second year the two next the centre drop out, and their place is taken by two more larger ones. This drepping out and coming in of the teeth continues at yearly intervals, until the age of four, or perhaps a little more, when the sheep is said to have a full mouth. At five there is scarcely a perceptible difference in the appearance of the mouth. At six the teeth begin to diminish in breadth, which continues until they really point to the centre of the jaw. In the coarse wools they then begin to fall, being about eight years old. In the fine wools, especially the Spanish, they may stay in until twelve. The latter, being of greater longevity by several years, do not begin to lose them as soon. If, during the winter, sheep are fed grain, their front teeth remain longer than if they are fed on roots. The mouth of a grain-fed yearling often resembles that of a six year old. The resemblance of the teeth and their separation are very often deceiving. This may be determined by observing the direction of the teeth—the lamb teeth stand erect, while the old sheep teeth incline toward the centre of the front of the jaw.

The condition of the mouth of a calf at birth depends much upon the period of pregnancy of its dam. Often at birth, and sometimes during the first week, two central incisors make their appearance. At the end of each succeeding week, until five, two come at the outside of the first two, making the mouth full at four weeks of age. After this period the age is marked by the wearing of the teeth; when at four months there will be a broad line in the centre of each. A new change takes place now, which may be called absorption. The space between the teeth will increase, beginning at the centre. Each of

the pairs will be so affected, at a space of two or three months, as to be easily seen. The process of absorption continues until the animal is about eighteen months old, when two permanent teeth make their appearance at the place where the first pair came. At two past, the second pair of milk teeth will be replaced by a pair of permanent ones. Two new ones will be added, until at five the animal will have a full mouth. From this time the age must be determined by the dark line extending over the pairs of teeth. At seven it has spread over and is becoming very irregular in all the teeth; while at eight there is a dark line seen within the one that first made its appearance over all the teeth. The process of absorption here begins again, and is similar to that seen in the milk teeth, but it does not go that extent. The two dark lines are now rubbed or worn into one, save in the two corner teeth. At ten, the mark in the two central incisors becomes very faint, while passing from eleven to twelve, at which age the mar is gone, save in the corner ones. The animal is now considered old, and in a few years is not able to sustain itself in good condition. The profits of a cow, in most cases, cease before arriving at this age. Depending upon the horns for the age of a cow we are often deceived, the rasp to some owners is so familiar. If we add two to the rings of an honest man's cow, we may rely on the age, subject to this fact, that if a heifer receives the male at two years of age, an immediate change takes place, and a ring appears on the horn.

The age of the horse, as shown by the teeth, is the only reliable one obtained, and in some cases this method fails. After the age of eight, his age can only be guessed at, and can scarcely be determined by experienced people. Previous to that age it is determined as follows:—The mark is found in the front teeth, next the tushes. When the foal is a few weeks, or, in some cases, a few days old, the whole twelve teeth begin to shoot. At nearly three years of age the two centres of each set are shed, and four horse teeth come in their place. A little after four years of age, he cuts four more new teeth, making then eight horse and but four foal's teeth. These last are slow growers. Those next the tushes are called pincers, and bear the mark, which consists of a cavity in the top, bearing a black spot. At four, or a little after, these pincers are a little above the gum, making the cavity very plain to be seen. At five, the tushes appear; at six, they are up, white, small and sharp, and the black mark has arrived near the upper edge of the corner teeth; at seven, the second middle teeth fill up, and at eight the mouth is full —the black mark has left. After this the teeth will become worn, upon which we must depend. The teeth will fit closely at nine; at ten the cavity in the upper tushes will be filled; at eleven the teeth will be long and foul; at twelve the upper ones will overreach the opposite; at thirteen the tushes will be worn very low, or black or foul. After this age no one need be deceived. The vigor of life is partially restored by feeding a small quantity of arsenic, and improved in appearance by inflating his temples, which are sunken and hollow, with air. The scraping and filing of teeth are often resorted to, and, in fact, by jockey's horse-dentistry may deceive many.

F. M. G.

THE BEE-KEEPER.

Movable Comb Hives.

My first experience with the frames or guides was in 1856. On seeing some notice and description of them, concluded it would be an excellent thing to have control of the combs, and to divide and subdivide at pleasure. I constructed a hive after an original idea, but found it very unsatisfactory, being of the immovable class.

Again, in 1861, after reading carefully most of the popular writings on the subject, I constructed several of a style quite different from the former, the frames being nearly square, and with a contrivance to run them up and down without sideway motion.

One year's experience convinced me that these two features, in which I had hoped to

excel in the construction of the hive, were really obnoxious.

The size of the frames necessary to this form of hive, renders handling in warm weather, when we draw the frames most frequently, quite impossible, and the contrivance for guiding the frames a nuisance about equal to a prohibit on handling.

But enough was learned of the domestic nature, with the fixed habits of the bee, to assure me that a hive might be constructed that would be practicable and convenient for manipulation. The matter was carefully considered in all its bearings, and I saw several points in which I could improve upon my former productions, and, not strange to say, I found every really valuable feature embodied in the inventions of those who had given far more study and observation to this subject than I could have done, besides many more good points. I at once adopted the wisdom and research of the inventor of the hive I now use, and actually bought a *patent right;* got sold? no, indeed! but regret that I did not sooner acquaint myself with its merits.

One thing especially I have learned: that is, *practical ideas of bee life and bee-culture are worth buying*, even if patents must be bought with them; and the more acquainted one becomes with the real nature of the bee, the more valuable one style of hive appears, and, consequently, the more than worthless character of the many unadapted and pernicious becomes apparent.

This bit of past experience brings me now to state plainly and briefly the style of hive adopted.

1. I use a hive containing about two thousand cubic inches inside the frames, as the best testimony gives that size for superficial surface as necessary for breeding and storage purposes.

2. I prefer what may be termed a shallow hive; only ten inches inside, and frames correspondingly shallow; eight inches inside, by sixteen and one-half in length.

It is a fact well known to those who have observed the progress of comb-building in its different stages, that bees universally commence with regular, uniform, worker comb, and after building sufficient for the first demand—increase—they will then diverge from this order by building store comb, which at once destroys the uniformity; and any depth of frames beyond the actual needs of the colony, increases the tendency to diverge from uniformity. In opening old hives, with comb from one to three feet in depth, I seldom find brood occupying over eight to ten inches from highest to lowest point; and any greater depth of frames is beyond their actual wants, and, as we could show, sometimes really pernicious. But in the matter of drawing the frames, no one will want them deeper than eight inches for convenience, after a fair trial. To the advocates of fourteen inch frames, I often say, "Would be happy to see you overhaul that hive." "Oh! really, can't take the time for that; don't like to handle bees much."

3. After careful experiments with movable bottom-boards, we discard them entirely. Nice to theorize on, but dangerous in practice. Cannot control the ventilation or vermination, shrinking and swelling by weather, often neglected, and to be of real service should be inclined, which will prevent one of the most valuable operations connected with the movable frames. Ventilation through the bottom board is found unsafe, and productive of more evils than benefits. I want no passage for air or insect that is not directly observable; hence will have the bottoms as near air-tight as cement can make them. The honey bee closes, if possible, with its cement, propolis, all passages not required for ingress or egress.

J. C. P.

A Chapter of Experience.

MR. EDITOR:—I read an article in the first number of the FARMER, Vol. 16, headed "A Broadside against Patent Beehives," by J. A. Shaw. He wished to examine a sketch of the Morehouse hive, by some one interested for it. I am not interested for it, or any other patent hive, and know nothing of them practically. I have an individual right of Langstroth's pat-

ent, and one of his books, but use a hive that my brother got up, with the movable combs similar to Langstroth's.

I took out every frame of 30 different hives, in the last swarming season, and found none crosswise or crooked enough to interfere with moving them, except two, which had some of the combs built cornerwise; but I cut them, and took them out without breaking them but little. I have seen but a few combs built perfectly straight, but the most of them are not crooked enough to interfere materially with moving them. And as to the frames being waxed so as to "part" before moving, I have not found any difficulty in that way in all the hives that I have examined; which would number fifty or more.

What little knowledge I have of bee-keeping I have derived from Langstroth's treatise on the hive and honey bee, and only two years' experience. I am not complete master enough of the bee to have "perfect" control, but have successfully handled every swarm that I have yet tried. I will not attempt to give my mode of handling them, but would refer to Langstroth's treatise, the only work that I am acquainted with; perhaps there are others just as good, or better. JOHN HOWARD.

LAKE, Jan. 10, 1864.

A Shot in Return.

MR. EDITOR:—I have been calculating the effects of the "broadside" against patent bee hives. I think it will take many broadsides from larger crafts than the one commanded by Com. Shaw to sink the public opinion of patent hives, or hives with movable frames.

Now, anybody who has practical knowledge of the movable frame hive, knows that the bees can be made to build on the frames sufficiently straight, if the hives are properly constructed, so that each frame may be taken from the hive, with the comb and bees, with but little trouble. I have 24 colonies in movable frame hives. In 21 of these the bees have built the combs so straight that last fall, when I put my bees in winter quarters, I examined every comb separately, removing every sign of moth, and seeing that the queens were all right.

The advantages of the movable frames are many; two I have stated, and I will state one more. The Italian bees are known to be superior to our common black bees. How are we to introduce them into our stocks? Without the movable frames the process would be slow, uncertain, and expensive; with them it it is easy, certain and cheap. Last June I received an Italian queen of Mr. Quinby, of New York. I now have from her 12 colonies with Italian queens.

Before the introduction of patent hives, the bees, in this locality, were nearly annihilated by "broadsides" from the bee-moth. Since that time bees have increased twenty-five per cent. per annum. It is not to be expected that anything can work well in the hands of inexperienced persons.

I regret that the FARMER sanctioned an effort to destroy the great, and, as yet, but partially successful, efforts that are being made to make this the promised land, flowing with milk and honey.

If those who are skeptical in regard to movable frame hives will call on me, at Baraboo, Sauk county, Wisconsin, I will show them bees under as perfect control as claimed by "parroters" of patent hives; yet I am not a patentee, nor an agent. B. L. BRIER.

BARABOO, Jan. 5, 1864.

THE POULTERER.

The Profit of Poultry-Raising.

In the vicinity of all large cities and towns fresh eggs are always in request, at the most remunerative prices. Every tiller of the soil posesses, more or less, facilities for feeding poultry economically, and has also the space upon his land to make them comfortable and thrifty. But some time must be given to looking after them daily, and a degree of care is requisite to keep them in "good heart," and to render them of profit in the end. Our Shorthorns and Alderneys, our Suffolks and Chesters, our Southdowns and Cotswolds, all require care to keep them in fine condition. Why not, proportionately, so with our poultry, which, having reference to the comparative cost and product, pays with certainty so

much greater a percentage of profit, year by year?

In France every farmer has his chicken yard, and the amount of poultry and eggs consumed by, and exported from that country is enormous. Monsieur de Lavergne, for example, estimates that the poultry of Great Britain for this year (1861-62) is valued in round numbers at twenty millions francs, ($4,000,000,) while the total value of the two products—poultry and eggs—in France at the same period reaches rising two hundred millions of francs, ($40,000,000).

If our American farmers would pay more attention to this subject, and so manage as to put upon the market their poultry in good condition *early* in the season annually, say in the months of May and June, a more than commensurate profit would follow the slightly increased expenses and extra trouble of the earlier rearings, inasmuch as matured chickens will command a considerably higher price in the months of May and June than during July and August.—*U. S. Ag. Report*, 1862.

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

Shall we plow our Orchards?

MR. EDITOR:—During the past year the nenessity of plowing in orchards has been discussed for and against, but not to my entire satisfaction. With your permission, I will give some of my ideas and observations upon this subject. I have seen orchards plowed, making the dead furrows at the rows of trees, leaving a strip of greensward about three feet wide the whole length of the row of trees. This is bad policy—leaving the roots of the trees bare and exposed—not plowing the land that most needs to be plowed. Some turn back-furrows to the rows of trees, covering the roots too deep, and leaving a strip of greensward, as before. Others plow around their orchards, turning half the furrows from the trees, and bank up with the other half. Cross plowing is the same, except leaving a square balk around the trees, instead of a long strip. In connection with this is breaking the surface roots, bruising and wounding the trees with plow, harrow, whiffletrees, &c., which is not a small item. Yet with this treatment, I have seen orchards revive and grow well, at least, for a time. But still I am of the opinion that a plow is not a suitable implement to use in an orchard.

A few years since, after having plowed my orchard about every way, and harrowed it the same, I seeded it to grass—but found the surface of the ground too uneven to seed down, without much labor with hoe and shovel to level the tree-balks, but, at last, got it quite well done, and I think it will stay done.

Now what will keep the trees in good growing condition? I have practiced mulching around the trees annually, which appears to be just what is needed. In the winter or spring,—probably mid-winter is better if snow will permit—take straw from the straw pile, after the cattle have trodden it under foot and mixed the manure with it, and put it around the trees, at the rate of a good load to eight or ten trees, thick enough to keep down grass and weeds. Consider whether the trees need much or little manure with the straw, and govern accordingly. If the orchard has been seeded down so long that the turf has become close and tough, I would take a pick or other implement, and dig up the turf for several feet around the tree, replace the turf bottom side up, and mulch as before. This seems to be what is wanted to keep the soil loose and enrich it as much as is necessary. In fact, it seems to be what new rum was said to be in my boyhood—good in wet weather, and good in dry weather, good in hot weather and good in cold weather, and finally, good all the time. I shall practice this method a while longer, and if I discover my orchard to be running down, and cannot find a better preventive, I shall again resort to the plow.

DAVID SEARS.

MONTICELLO, Dec. 15, 1863.

THE BEST SHADE TREES.—For the beginner, we would say, plant, at first, native, well known hardy trees. These will include, generally, the white elm, the rock maple, silver, red, and black maples, the white ash, the white oak, chestnut, and perhaps a few others. To these we would add a few evergreens, such as white pine, balsam fir, black and white spruce, and arbor vitæ. Then we would go on with the Norway maple, English, Scotch and Dutch elms, Scotch larch, European mountain ash,

Norway Spruce, Siberian arbor vitæ, and a few other foreign evergreens.

Cultivation of Apple Trees in Portage County.

EDITOR WIS. FARMER:—I have been experimenting with apple trees, and observing the experiments and experiences of others for several years, and, if the results of such practical observations would be acceptable to you, I should be pleased to contribute them from time to time to the FARMER.

The soil of this county consists of a light sandy loam, gravelly and stony subsoil, naturally well drained, and, except in a few localities, pretty good for the apple—good enough to yield fair farm crops. The degree of cold experienced, generally in the night time, is severe, the thermometer (Fahrenheit) sometimes 40° and even more below zero, often followed by warm and pleasant weather.

Of the long lists of apples tried here, most have become diseased and worthless within a twelvemonth after planting; and, of the many seedlings, not more, perhaps, than one in a thousand have been able to withstand the vicissitudes of our climate and the careless cultivation to which they have been subjected. Still, several hundred fine and healthy trees, unaffected by the cold winters of 1855 and 1856, are living and bearing fruit in the county. This fact is encouraging people to plant. All want hardy sorts, and those who offer them say they sell only the "hardiest kinds in the West;" so the selection is left to the agent, who in turn leaves the selection to the nurseryman; he fills the bill with such as are most convenient—good and hardy *somewhere*, perhaps, but certainly not here. Now this indiscriminate planting is all wrong, as there can be no hope here with a "half-hardy," "pretty hardy," or tender sort. One thing is sure—if success with fruit trees ever becomes general in this part of the State, people must learn *what varieties they want, how to plant, and how to cultivate.*

With reviving hope and confidence a corresponding study of tree culture may reasonably be hoped for, and the general failure of those who ignore "the books" and published information, should teach the more intelligent that the proper way to establish "rules for practice" for themselves is to be guided by the carefully conducted experiments of persons in our own State. And, from a reading and comparison of most of the leading agricultural and horticultural journals, for several years, I can safely assert that newhere can such information be obtained, as carefully sifted from wild theories, and as applicable to us, as in the WISCONSIN FARMER. Still, with a different soil, and somewhat different climate from that of our neighbors in the southern part of the State, a somewhat different treatment may be necessary, and proper, and only the hardiest sorts should be planted. The soil being light, a more thorough system of mulching, both for summer and winter, becomes necessary, and less stirring of the soil, and more thorough protection to newly planted trees; but of these matters I will write at another time. J. W. RIST.

PLOVER, Portage Co., Dec. 16, 1863.

Ten new and Promising Apples.

BY J. C. PLUMB, LAKE SIDE NURSERIES, MADISON.

EARLY RED.—Tree, vigorous, upright, thorny, very dark, smooth wood; we have not found it an early bearer; fruit, medium size, round, red and striped, often dark red; flesh, white, stained with red, tender, pleasant, subacid. First of September.

FALL STRIPE.—Vigorous, beautiful grower, extremely hardy, great and early bearer; fruit, medium size, nearly round, uniformly fair, tender, aromatic, subacid flavor, which takes everywhere; season, August and September; for family and market; like most early fruits, it does not preserve its flavor long, and is so prolific that a few trees will supply a neighborhood. It is a seedling of New England, introduced some twenty-five years since, by the writer's father.

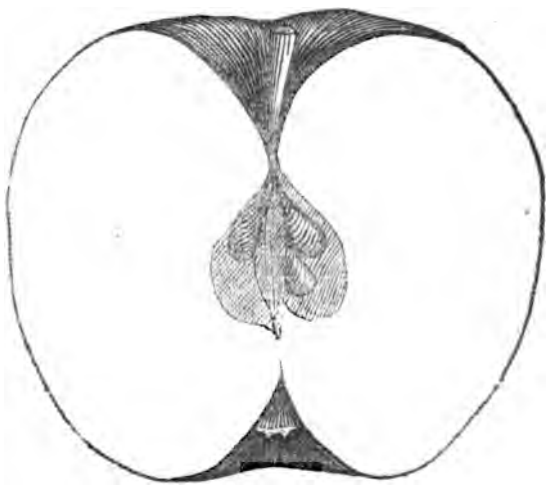
CRANBERRY.—Tree, very vigorous, irregular spreading, stout reddish shoots, with scattering whitish specks, difficult to grow handsome,

except as a dwarf; very hardy and productive, superb for the garden; fruit very large, round, flattened, conical, greenish yellow, with bright red stripes and beautiful blush; stem, short and thick, cavity wide, deep and smooth; calyx, closed, basin shallow; flesh, white, fine grained, tender, juicy, brisk tart; excellent cooking from June to September.

Utters.—This splendid fruit was introduced into Dane county some twenty-three years since, and some years later into Jefferson county, from Illinois, but seems to have been lost sight of there, not being recognized when presented at their exhibitions. Tree, vigorous, upright grower, reddish grey wood, sheds its foliage in September; in the orchard, productive and quite hardy; fruit, large, round, flattened, mostly white, with some red stripes, very regular, smooth and beautiful; flesh, white, fine grained, firm, juicy, tart, good. September to December.

Fall Winesap.—Tree, very vigorous, irregular grower; forming a beautiful orchard tree, with many pendulous branches; wood, a dark brown, with many greyish patches after two years old; leaves, large and broad, many of them remaining on the tree till mid-winter; very hardy and productive; fruit, medium size, round, conical, pale green, often bright blush on sunny side; stem medium, cavity wide, smooth, deep; calyx closed, basin narrow; core small, seeds large, flat; flesh white, tender, juicy, mild, vinous, good. October to January.

Cider.—Resembles the St. Lawrence tree, but more vigorous, great bearer, very hardy and productive; fruit, large, oval, medium sized, red striped; stem slender, in a very narrow, deep cavity; calyx small, closed, slight basin, core medium; seeds many, small, flesh white, tender, brisk sub-acid; excellent cooking and eating. September to January. It promises to become one of the few completely successful in the rich soils of the West. Has been cultivated by the writer for the last twenty years, supposed to be an old variety by some, but has not yet been identified.



FALL WINESAP.

Canada Black.—Tree very vigorous, upright grower, dark wood, with many small shoots, extremely hardy and productive with age; fruit, medium to large, oval, green, mostly covered with dark red; stem, short, thick; cavity, narrow, shallow, calyx small, closed; basin narrow, plaited; core oval, seeds large, black; flesh coarse, greenish, streaked with pink, firm, juicy, mild, good, January to spring.

MINKLER.—Tree hardy, rapid, spreading grower, young wood bright red; resembles Red Romanite in tree and fruit, but is larger and higher colored. Illinois Hort. Soc. put it upon their list for general cultivation in northern Illinois, in 1861. Said to be "an early and good bearer, and very hardy; good keeper until spring." It promises well in Wisconsin.

CHRONICAL.—New and untested, but highly recommended by the party who introduced it from Indiana. Tree vigorous and hardy; fruit keeps well until July.

DUMELOWS.—A foreign variety, found very valuable after fifteen years trial in this State. Tree, strong spreading growth, stout, speckled shoots; very hardy and productive; fruit medium, round, always smooth and fair, pale yellow, with delicate blush at maturity; stem short, small cavity; calyx large, open, in a shallow basin; flesh white, fine grained, semi-transparent, juicy, brisk tart, which it retains till June; this unusual quality will render it popular.

Cheap Wine.

John H. Klippart, in an article in the Ohio *Farmer*, says that just as good wine as the Ohio vintners make from grapes and sell for two to two and a half dollars per gallon, can be made from good cider properly treated, with the addition of glucose or grape sugar, and can be sold at a good profit at 25 cents per gallon. He adds: It may be stated without any disparagement to the efforts of Ohio wine-growers from the grape, that Prof. Kirtland has from cider and glucose prepared an article of wine, which is second only to the very best Sparkling Catawba, which it has been the writer's fortune to taste. A good bearing orchard in the vicinity of a starch factory is a better guarantee for the future production of a cheap and healthy wine, than the largest wine-cellars and delicate saccharometers in the State.

We are sorry not to be able to agree with friend Klippart, but are, nevertheless, firmly established in the opinion that no juice under heaven is equal to that from the grape for the manufacture of *wine*. Currants, rhubarb, and a great many other fruits and vegetables yield a juice that may be made into a very drinkable beverage, but it is hardly pardonable to compare them with the grape.

Fruit Trees in the Northwest.

EDITOR WIS. FARMER:—The following extract from a business letter by a gentleman in Rice Co., Minnesota, embraces so many points of general inquiry on the subject of fruit growing, that it would, doubtless, be a favor to many of your readers, north and west, to publish it and also my reply might stir up some of the faint hearted, in the matter of tree-planting, to renewed and well directed action; or if they shall awaken inquiry and elicit criticism, or responses from practical tree-growers in similar locations, much good may result:

"Having, within the last three months, removed from Dodge county, of your State, to Minnesota, and surprised at finding scarcely a healthy apple tree, I would like to ask your opinion in regard to the cause. I have traveled in this State over 150 miles, mostly on the prairie. Soil here is almost invariably deeper, and underlaid with a more porous or looser subsoil, than with you, which is the case in timber as well as on prairies. On almost every farm may be seen stubs and stumps of trees, which throw up sprouts every summer to kill down the succeeding winter. Trees seem to make very slow growth here, and I think the twigs, on being cut, show a larger pith than in your State. Trees on timbered lands, in some places, show faint signs of succeeding. One man told me that he has seen two orchards on the prairie which were doing middling well, and the owners said they manured high and planted with corn every year. My theory is, that the tree fails to get from the soil a sufficient amount of the right kind of food for making wood, and, consequently, is thin, soft, and pithy when our cold winters come on, and then dies from cold. I think if a piece of land can be found here, with subsoil near enough to the surface to be reached with a common plow, trees would succeed on it, for the subsoil must contain the requisite food, as it is rich with lime. I have seen a few Siberian Crabs here, that any one might be proud of, and wild crabs and wild plums

are very abundant in the groves. Now, I want to ask you a few questions:

"1. Which are the three hardiest kinds of apples you propagate, naming one each of summer, fall and winter; and have you any other as hardy as the Duchess of Oldenburg?

"2. Provided other trees cannot succeed here, would the common apple do well, or at all, top-grafted on the Siberian Crab?

"3. What kind of food do trees want, which they fail to get here, and how can it be supplied, and would common yard or stable manure be a benefit to our trees?"

In answer to the queries:

1. As to the hardiest three, it would be like separating the three sister virtues from the whole circle of perfection's graces, when at least twenty varieties have stood equally unscathed through all the trials of a long Western experience, and none of them have failed from want of a hardiness equal to the crab; taste and local circumstances alone can discriminate.

Were I to select three, Duchess of Oldenburg, Fall Winesap and Golden Russet would be the choice for market apples. But many tastes would reject the Duchess, when presented in contrast with others equally hardy and of higher quality.

2. As to the practice of working our choice apples upon Siberian or any other crab stock, it is impracticable with most varieties, for two reasons:

First—The difference in the texture of the wood prevents a perfect union, and, consequently, a free flow of sap; and

Second—From the fact that the cion influences and develops its own character in the stock, far more than the stock influences the cion. Therefore tender varieties will not be materially benefitted by the practice; and those varieties which do unite well are about as hardy as the crab.

3. On the subject of soils; it is universally the case throughout the Northwest, that the deep valley loam of either prairie or timbered lands is found totally unfit for the development of healthy fruit trees. Not because the soil is deficient in the necessary elements, but because vegetable mold predominates to so great an extent that a sappy, unripe growth is produced, during the warm autumns peculiar to the Mississippi valley, and this is particularly the case in the generally favorite location for the orchard, the doubly enriched garden spot.

As before remarked, your prairie or timbered lands are not wanting in any element needful for a healthy growth; therefore stable manures will not remedy the difficulty, and should only be applied to lean and very dry soils by surface application. Deep tillage, so essential in all branches of agriculture, stands prominent here. Use the subsoil plow, and if a porous subsoil can be reached, success is not an uncertain thing.

The large pith noticed, is the result of unripened growth. The time between active circulation and the quiet of winter is too short to fill up the cellular structure to the usual degree of solidity.

In brief; the probable cause of the failure mentioned by you may be found in four definite points, viz:—Planting on *low or undraised* soils, too rich in vegetable mold; *warm, sunny aspects; deep planting; tender varieties*, totally unfit for the sudden and extreme changes incidental to the West.

The conditions of success, then, are, *shallow planting*, three to six inches higher than the tree stood in the nursery; plant upon the *highest knoll, bluff, or ridge, possible*, open to a free circulation of air from the cold quarter; and of known *hardy, adapted varieties*.

In your State, the greater portion of Iowa, and the northern portions of Wisconsin, the tree planter's experience began about the time of, or subsequent to the trying winters of 1855–56. Therefore they had not so many opportunities for comparing results occasioned by difference of soils, location—including elevation and aspect—and varieties, as in older settled portions. But the field of observation is now open, and not until your fruit growers are wide awake to this subject, and

careful to make close observation and correct data from the now sufficient experience of your own localities, can you become rooted and grounded in a practice as safe and reliable as is fruit growing anywhere.

That such can be the case, I do not hesitate to declare, subject, of course, to such latitudinal limitations as operate everywhere. Having before learned from various sources of the difficulties the pioneers of fruit growing in your State have met with, the question of success and failure is, to me, one of easy solution.

From 1856 to within two or three years, on every hand in this State, we met the same difficulties you speak of, but, regarding them as effects not without a cause, we brought to bear the experience of the past, with careful observation upon causes, as connected with the different conditions of soil, location, varieties, &c., and found that cause one easily remedied. Practice has proven my theory correct; the public have shown a fully restored confidence in fruit growing, by the immense demand for Western grown and Western proved varieties; and at no time within the last twenty years have the prospects for successful and profitable fruit growing been better than they now are. J. C. PLUMB.

LAKE SIDE NURSERIES, MADISON, WIS.

The Concord and Isabella.

The Concord grape is a more recent introduction, has many qualifications to recommend it for general cultivation, and is one of the most generally popular of all native grapes. Though it cannot be called a fruit of first rate excellence, it is of good quality, and to most persons very pleasant and acceptable. As usual with new seedling varieties, it has materially improved in quality since its first introduction, and is much better further south than in Massachusetts, where it originated. It is vigorous in growth of vine, very hardy, productive, and ripens its fruit evenly and perfectly from the middle to the last of September. Its strong and luxuriant foliage resists mildew or *oidium;* and I have never known it to rot in unfavorable seasons, and in localities where Catawbas and Dianas have been destroyed. When well grown, its bunches and berries are of large size, often shouldered, quite black, and covered with bloom; skin thin; pulp soft; moderately juicy and sweet, with somewhat of the "foxy" odor and flavor. It does not keep long after being taken from the vines. As a wine grape its character is not well ascertained, although Mr. Bull, the accomplished originator of it, and others, have made delicious wine without the addition of sugar.

The Isabella grape is so well known as to require no description. Next to the Catawba, it has probably been more extensively planted in the United States than any other variety. Where well cultivated, and its natural tendency to over bear is checked by proper pruning and judicious thinning of the fruit, it is a profitable and valuable variety, and will ripen its fruit nearly as early and as far north as the Concord. To have good Isabella grapes the vines should be kept renewed by frequent pruning out of the old wood, and from half to two-thirds of the fruit bunches cut away as soon as possible after flowering. This variety is sometimes disposed to mildew and rot in unfavorable localities, but to less extent than the Catawba.—*G. W. Campbell, in U. S. Ag. Rep.* 1862.

Mode and Time of planting Grape Vines.

Geo. W. Campbell, of Delaware Grape notoriety, makes the following remarks in his circular:

"I have found little difference in the growth of vines, whether planted in fall or spring. When planted in the fall and slightly protected during the first winter, an early start, and usually a more vigorous growth may be expected, than from vines transplanted in spring. A somewhat elevated situation, and a deep, pervious soil, moderately rich, is best. A calcareous clay loam, well underdrained, will produce good healthy vines and fruit, and if abounding somewhat in gravel or pebbles, so much the better. If lime is not naturally in the soil, it should be pretty freely supplied; and if the soil is poor, enrich it with any well decomposed manure at hand. Fresh or partially decomposed manure induces unhealthy growth, and disposes vines to mildew. Low situations, where water will settle and stagnate about the roots, will not answer. Where immediate fruiting of young vines is desired, permit but one cane to grow; stop, or pinch off all laterals at one joint from the main stem; keep the vine tied upright, and at the height of four or five feet, pinch off the leading shoot. This course will strengthen the lower buds, and often give fruit the year after planting."

PLUM TREES.—The best soil for plum trees consists of a heavy clay loam, and then a gravelly soil, while a sandy ground is the poorest of all, and also the worst for the presence and ravages of the curculio—that shy and destructive plum enemy.

The Angle Worm a Pest.

MR. EDITOR:—I wish to make some inquiries concerning the extermination of the Fish or Angle Worm, which has been a great pest in many of our gardens in this village. My garden has been of little or no account whatever. They were so numerous that there would frequently be a half a pint in a spadeful of earth. They have left no adhesive property in the soil; it is like a bin of shelled corn. I faithfully tried lime and ashes, all to no effect.

I have found potato hills white with lime while digging, and the potatoes, what there were left, were half consumed by the worms.

I have thus far found salt to use them up more effectually than anything else I have tried. I sowed half a barrel, a few days since, on a small garden, and intend doing the same in the spring. If it has the desired effect, I will drop you a line. S. BARNEY.

WAUKESHA, Dec. 6, 1863.

MECHANICAL AND COMMERCIAL.

Consolation for Mechanics and Merchants.

MR. EDITOR:—It is often asserted, though seldom proved, that farming is the most independent of all occupations; which I suppose means that farmers, as a class, can live longer and better unassisted by others, than others can unhelped by them. But to me it appears quite otherwise, for I see no way by which the farmer can produce that upon which he can live and outlive those who are considered more dependent, unless first aided by others, the mechanics. Why am I not as dependent upon the mechanic for the indispensable implements used in raising the life-sustaining productions of the soil, as he is upon me for what I produce? The plow and harrow, the reaper and threshing machine, every tool used in performing all the various works of the farm are the productions of his skill; and why am I not as dependent upon him for these articles absolutely necessary, as he is upon me for the crops which I could not produce without him?

Machinery and tools are essential to the farmer. He can do but little without them. To dispense with the many and different implements used upon the farm would be to throw up his occupation. Bare hands could not till the soil.

Neither is the farmer more independent of the merchant than the merchant is of him. It is quite as necessary that the farmer's back should be covered, as that the merchant's stomach should be filled. For every garment worn, for all furniture and goods which make the farmer's house convenient and his wife happy, for many luxuries of the table, and for a thousand and one little articles that make his pursuit pleasant, he relies upon the merchant. I am unable to conceive any manner in which the farmer could, independent of the merchant and mechanic, strike the first stroke towards the production of a crop. He could produce nothing, either for himself or them, without their assistance. Deprived of their aid, he would be powerless to perform the commonest work of the farm. Then why so independent of others, if helpless without them?

It is said that the "independent producers" are sure of a subsistence, while others are not; which sounds well enough, and to some is a balmy consolation. But all other classes have heretofore lived, and will continue to live, because farmers, in order to promote their own interests, are compelled to sell a large proportion of all their farm products. Probably the amount retained for their own use is a less proportion of the aggregate produced than the farmers themselves are of the entire people of the country. If so, farmers are as likely at any time to suffer the pangs of starvation as others, because the amount ordinarily reserved for home use would sustain them no longer nor better than the portion disposed of would keep all other classes.

Wherein the farmer is more independent of others than others are of him, I fail to see. His success depends upon the mechanic and merchant, and their success depends upon

him. Each seems *alike* dependent upon the other. H. BEACH WILLOUGHBY.

LANE, Ogle Co., Ill., Feb. 1, 1864.

The Manufacturing and the Commercial Interests of Wisconsin.

The following extract is from the Governor's late message. It has, doubtless, been read in its proper place in that document, but the views they present are so eminently sound and so important withal, that we have pleasure in giving them a conspicuous place in this journal:

MANUFACTURING INTERESTS.

Perhaps no State presents greater advantages to manufacturers than does Wisconsin, and no State needs them more. With water-power in abundance, mechanical genius unsurpassed, iron, copper and lead ores, in short, nearly all kinds of raw material in unlimited quantities, needing but the work of the mechanic to supply our wants. We are annually paying out large sums of money for the transportation to our State of iron, lead, copper, glass, crockery, agricultural implements, leather, carriages, machinery, cloths, and other useful articles, and paying also for the transportation from the State of the raw material from which many of these articles are made.

Had we the needful manufactories within our borders, we would not only save this large outlay and loss in the transportation of the raw material from, and manufactured articles to, our State, but would also derive large profits from supplying with manufactured articles those outside our limits who have not the natural advantages for manufacturing we possess, as well as from the increased home market these manufactories would afford.

Sound policy would seem to dictate that we should use all proper means to foster this branch of our industry. The prominent reasons why manufactories are not more generally established in our midst are doubtless the want of a knowledge of the natural facilities our State affords, and a want of capital. Measures should be adopted to lay before eastern capitalists the great advantages to be derived from engaging in manufacturing in our State, and proper effort should be made and laws enacted to remove impediments and hold out such inducements as will insure the advancement of this interest.

COMMERCE.

Commerce is also among the objects of interest to which I feel it my duty to call your attention. Upon it all our other industrial interests largely depend for their prosperity. Our towns and cities are fed by it, and there are none within our borders so high or so low as not to feel its influence. And especially would I bring to your notice at this time, the commerce of our lakes. Our harbors need improvement, our lake commerce and lake cities need protection. It is true, these are objects more immediately under the care of the General Government, but if in no other way, may not this legislature do much to bring about the desired end, by memorializing Congress and making a proper representation of our wants?

"SHODDY."

Old Shoddy sits in his easy chair,
And cracks his jokes and drinks his ale,
Dumb to the shivering soldier's prayer,
Deaf to the widows' and orphans' wail.
His coat is as warm as the fleece unshorn;
Of a "golden fleece" he is dreaming still;
And the music that lulls him night and morn,
Is the hum hum-hum of the shoddy mill.

Clashing cylinders, whizzing wheels,
Rend and ravel and tear and pick;
What can resist these hooks of steel,
Sharp as the claws of the ancient Nick:
Cast off mantle of millionaire
Postilent vagrant's vesture chill,
Rags of miser or begger bare,
All are "grist" for the shoddy mill.

Worthless waste and wornout wool,
Flung together a specious *sham!*
With just enough of the "fleece" to pull
Over the eyes of poor Uncle Sam.
Cunningly twisted through web and woof,
Not "shirt of Nessus" such power to kill;
Look how the prints of his hideous hoof
Track the fiend of the shoddy mill.

A soldier lies on the frozen ground,
While cracks his joints with achs and ails;
A "shoddy" blanket wraps him round,
His "shoddy" garments the wind assails,
His coat is "shoddy" well "stuffed" with "flocks;"
He dreams of the flocks on his native hill;
His feverish sense the demon mocks—
The demon that drives the shoddy mill.

Aye! pierce his tissues with shooting pains,
Tear the muscles and rend the bone,
Fire with frenzy the heart and brain;
Old Rough-Shoddy, your work is done;
Never again shall the bugle blast
Waken the sleeper that lies so still:
His dream of home and glory past:
Fatal's the work of the shoddy mill.

Struk by "shoddy" and not by "shells."
And not by shot our brave ones fall;
Greed of gold the story tells,
Drop the mantle and spread the pall.
Out on the vampires! out on those
Who of our life-blood take their fill!
No *meaner* traitor the nation knows
Than the greedy ghoul of the shoddy mill!

AMERICAN COTTON GINS IN EGYPT.—A few months ago an agent from Egypt, where Sea Island cotton is grown, visited the New York Cotton Gin Company, for the purpose of inspecting their cotton gins. So well pleased was he with their operation that he contracted for twelve on the spot. These were completed and forwarded, and gave such satisfaction that three different orders have since been received, embracing 192 gins. What wonderful changes have taken place in the lapse of centuries!

SCIENCE, ART, STATISTICS.

The Moth.

These pernicious, destructive little insects are, according to Linnæus, the celebrated botanist of Sweden, of the genus of *Phaleana*, a name appropriated to this particular genus.

During the month of March, and sometimes as late as April, we find them in the chrysalis, (or state of rest, requiring no food,) under the edge of the ingrain carpet, but in Brussels, Wilton or tapestry carpeting, we find them close to the foundation, under the worsted. The reason of their being found as described above, under the edges of carpets that are ingrain, is, that kind of carpets are all wool material, in which the moth finds its element. Brussels and tapestry have a linen or hemp foundation; hence the cause of their being found above the linen.

From this chrysalis they change to a miller or moth, with wings. This moth varies in color in proportion to the colors of the carpet which they have eaten. They usually are from a light color to a dark drab. We see them flying about most frequently during the first part of the day, looking for places to deposit the eggs, after which the female dies. The egg hatches in a few days into a worm which grows from a quarter to half an inch long, eating the carpet while in the worm state. As soon as sufficiently supplied, it will spin its cocoon and pass into the chrysalis state, as before, requiring no more food until a moth again.

Instinct leads them to places where they will not be disturbed—under sofas, divans—dark and quiet places.

Now the plan for destroying them either in the chrysalis, moth, or egg state: Camphor, well cut, to a quart of whiskey, a hot flat-iron to pass over a piece of muslin wet with this solution, and thin enough to allow the steam and heat produced by the hot flat-iron to pass through the carpet. Carpets that are taken up spring and fall are more free from the work of the moth, but this remedy is practible in all cases—more particularly, perhaps, where a velvet tapestry carpet is put down by patent machine, and is so heavy that it cannot easily be taken up. This camphor saturated muslin should be applied wherever there is evidence of the worms.

Sweeping your carpets with coarse or rock salt is a sure means of keeping away insects, and it also brightens the colors and renews it again. Sweep with a common broom, as the salt—from a pint to a quart—is scattered over the carpet. The sweeping is performed easier than with the patent sweepers.

The same method with furs before putting them away for the summer. All furs—Russian sable, stone marten, fitch, Maltese, chinchilla, and colored—should be put away as soon as warm weather commences. A sure way to keep them is, to make newspaper sacks, double, large enough to lay the furs in without folding more than once to crowd or break them. Make the edges of this sack perfectly tight, by gluing with Spaulding's prepared glue, or stitched with needle and coarse thread all around. After you have applied the hot flat-iron where you think the moth has worked, and after your furs are thoroughly brushed and free from the moth work, put them in this paper sack, the ink on which has also the effect to preserve them. Then put this sack in a linen one, and hang up in your clothes-press, or some dark place, away from the flies in summer, and not store them away in trunks. Many use tobacco in putting up furs for the season, but there is always danger of the furs being destroyed, if that is used with them. If you prefer to put something in them, use camphor, or fine salt sprinkled through them. The risk of using tobacco is there is an insect in the tobacco which is as destructive as the moth, so that this plant is not a safe one to use in any form, shape or manner.

I will mention here that the old-fashioned seal skin covered trunks are a great objection in the house, as the moth gets in them, and the seal skin being impenetrable, the moths find their way under it next to the wood, and

cannot be removed or destroyed easily. They increase rapidly. No woolen goods should be kept anywhere near them, neither velvet, as they find their element in these goods, and injure, if not destroy them.

These facts I have gathered from my own experience. M. G. ALMY.

FARMER, N. Y.

EDUCATIONAL.

Gov. Lewis on the Agricultural College.

"Our agricultural interests have seldom been more highly favored than during the past year. Although but a small proportion of the arable land of the State is under cultivation, Wisconsin has raised for exportation during that period, about twenty millions bushels of wheat, besides large quantities of oats, corn, and other grain. The whole amount of grain raised in the State during the year is about sixty millions bushels.

"The noble calling of the agriculturist lies at the foundation of the prosperity of our people. It needs but to be stated, that five-sixths of our population are engaged in agricultural pursuits, and that the greater part of our revenues are derived from this source, to establish its importance, and commend it to your careful attention.

"Efforts should be made for the advancement of industrial education, both as a means of developing our resources and rendering agricultural pursuits more attractive to our youth.

Congress has very wisely provided for the establishment of an Agricultural College in our State, and has donated 240,000 acres of land for its endowment. This land has been selected during the past year, and is said to be of a good quality.

"In view of the importance of such an institution to the interests of the State, and of the fact that unless it is established within five years from the passage of the act making the grant, the land reverts to the General Government, I feel it my duty to urge upon the Legislature the necessity of immediately making provision for the location of this institution, the sale of the lands granted by Congress and the purchase of a farm and the erection of buildings thereon; in short, the necessity of complying with the conditions of the grant in order that we may reap its benefits.

"The events of the last two years having so fully demonstrated the want of a school within our State where military instruction may be obtained, I would also suggest the propriety of incorporating into the organic act establishing this college a provision requiring that a prescribed amount of military instruction shall be included in its course of study, sufficient at least to ground its students in the rudiments of military science."

Books for Farmers.

The long winter evenings may be profitably spent by those engaged in rural pursuits, in reading good books relating to their profession. There are many excellent works on agricultural topics, which the farmer may peruse with pleasure and profit. My family have been very much interested, of late, in a new work, just published, entitled "My Farm of Edgewood," by Ik. Marvel. The author details his farming experience in an amusing and instructive manner. A strong vein of common sense pervades the work, and it is just the book to read aloud in the family. We think no one can read it without obtaining practical hints enough to make him ample remuneration for the few shillings it will cost.

The scientific readers of the FARMER will be pleased to peruse Prof. Liebig's late work, "The Natural Laws of Husbandry." The professor has spent years in experimenting and studying the natural laws pertaining to the growth of plants, and it would be strange indeed if one of the ablest chemists Europe can boast should not be able to throw some light upon topics so little understood in their natural and scientific relations. The work is not without its faults, yet we believe the scientific agriculturist will find in its pages much food for reflection and profit.

No one who is interested in sheep should fail to read that really valuable work, "The Practical Shepherd." L. L. F.

County Superintendents.

MR. EDITOR:—I wish to write a few words upon a subject which not only does and should interest professional educators, but equally demands the attention and action of every farmer in the State. Consequently, it is a subject which belongs in the columns of an agricultural journal; for anything that interests the farmer, as a farmer, belongs to him to advocate or denounce, as its merits may demand, even through his own special periodical.

The subject to which I have reference is that of the office of County Superintendent of common schools. At the time this office was created in this State it, of course, had its many advocates, as all other changes have, and many believed in it as a necessity to complete a system; and many believed in its final success, while very many had but little faith in its working favorably and advantageously for the reform and progress of our common schools. They were willing to test the practical workings of the system in our own State, which had already been tried in another State and failed to meet the demands of the people and was finally abolished. I am fully satisfied that the present system, as it now stands, does not meet the demand of the people for progress in our common schools, and improvement in the school system.

Under the present system, the distance from the school to its nearest Superintendent (which is from district to county) is so great that there is a coldness and lack of interest engendered that causes many schools to flag.

This system might be well enough if it was complete, but, to make it so, there must be an intermediate officer, between the district and county, whose duties shall be the same, or nearly that of former town superintendents, and then I can see no real necessity for the office of county superintendent, for the reason that the real interest in the schools is brought nearer our schools and our homes. And then the business necessary to be done which relates to school matters, and is intermediate between town and State, may be done by a proper county officer, and thereby save a little unnecessary expense, which we, under the present system, submit to.

I fully believe that the office of County Superintendent of Common Schools should be abolished, and a more appropriate one substituted, and that I have sufficient reasons therefor. Still, I do not wish to influence one mind to act contrary to what is proper and for the true interests of our common schools—for our welfare and nationality depend much upon the condition and standing of them—but rather that I could induce one to threw in his mite to help to strengthen this base upon which rests the mighty pillars of our national government. I wish to suggest to such as have, after due deliberation on this subject, arrived at the conclusion that we have an office in that of County Superintendent of schools that does not give an equivalent, in the way of benefitting our schools, for the money which it costs to maintain it, and who believe that the present legislature can make a change for the better,—I say that I would suggest to all such that they go about it immediately in their several towns, and circulate petitions to the legislature to abolish the office of County Superintendent of common schools; and all who are opposed, of course, have a right to do the other thing. O. P. D.

☞ Precipitate men should accustom themselves to speak and write slowly. The irresolute should endeavor to perform their acts with rapidity. The gloomy, romantic dreamer should be trained to walk with head erect, to look others straight in the face, to speak in a loud, distinct tone of voice. It may seem incredible, but I can affirm from personal experience that such habits exercise a great influence both on mind and body.—*Dietetics of the Soul.*

MISCELLANEOUS.

Notables whom we saw in Europe.

NO. II.

MEMBERS OF THE ROYAL FAMILY OF ENGLAND.

THE PRINCE OF WALES.

We had hoped to see "Her Majesty," the Queen, but the death of her noble husband had so o'erwhelmed her with grief, that she not only gave no receptions, but did not herself appear on any public occasion during the summer of 1862. At the time of our visit to Osborne House, on the Isle of Wight, as also when we subsequently visited her magnificent Castle at Windsor, she was absent in Scotland. Had it been years ago when the Queen was more queenly, we should have felt this disappointment very considerably, for we have always been rather partial to Her Majesty. We trust that ere this she is enjoying recovered health, and that her evening of life may reflect a mild and mellow radiance upon its beautiful morning and noon.

Victoria had no inheritance of genius, and has, therefore, done nothing to distinguish her reign. If the English people want the example of a pure, devoted, and consistent mother, for the imitation of her matrons, they have all that in the person of their much beloved Queen. But if they want a ruler—if monarchy is not a sham—then they will have to wait a little longer.

Of the royal offspring we saw several, and on several occasions. Victoria, born 1840, now wife of the crown Prince of Prussia; Albert Edward, born 1841, recently married to Princess Alexandra; Alice, born 1843, married 1862 to Prince Louis of Hesse; Alfred, born 1844; Helena, 1846; Louisa, 1848; Arthur, 1850; Leopold, 1853; Beatrice, 1857;—this is the long list of them.

Victoria we did not see; only her husband, the coming king of Prussia—a tall, rather princely looking German.

Albert Edward, the Prince of Wales, Duke of Cornwall, and heir apparent to the throne of England, whose pleasing portrait is presented above, having travelled in this country, may have been seen by some of our readers. So far as he has yet discovered himself to the world, he is a young man of ordinary talent, amiable temper, and a little inclined to indulge himself in certain forms of vice not altogether unusual among princes. He has had every advantage in the way of education and foreign travel that unlimited wealth could afford, and if he accomplishes but little for the great nation over which he is likely to be called at an early day to preside, it will be simply because it is not in him to be anything more than a common man.

His face is that of the Georges; it is to be hoped that he has not also inherited their evil proclivities. We met him on two or three occasions at the Great Exhibition, quietly looking about, and seeming to enjoy the opportunity and to appreciate much that was there, especially the works of art. Now that he is married and settled in life, with a snug little income of over half a million of dollars per annum, we have a right to expect him to do and be something worthy of a prince.

Alice was married in a quiet, private manner, at Osborne House, during our stay in London. A modest, pleasing young lady in her twentieth year, with some of the characteristic features of both father and mother—light hair, blue eyes, expression kindly, suggestive of the good wife she would be likely to make for the handsome German Prince Louis, who, without much delay, settled the

floating gossip as to their mutual attachment and intent, by making her his bride.

Alfred we did not see. He is represented as being a boy of vigorous intellect and of high spirit, much inclined to rebel at the laws of primogeniture, and to show his grudge at his elder brother for being born first, by an occasional *walloping*.

Helena and Louisa, then nice looking young ladies of fourteen and sixteen, it was our pleasure to meet on several occasions. They have the same type of face and form as Alice, and, without being handsome, are, nevertheless, quite attractive. Height medium, form substantial, yet graceful; eyes soft blue and full of genuine affection, complexion not very clear, hair light and wavy. At the Exhibition they were dressed in plain black, without the slightest ornament, and, by their quiet, exceedingly modest deportment, and sweet way of expressing their opinion of the paintings and other articles, won the admiration of all observers. It will be remembered by those who have read our accounts of the Exhibition, that each day of the week had its own admission price—some being five shilling days, some seven shillings and sixpence days, and others shilling days—the high priced days being designed to accommodate the more aristocratic class of the people, who were averse to being gazed at and jostled by the crowds of plebians; the shilling days were designed to favor the common herd. The Queen was democratic enough to invariably send her family on the shilling days; assigning, very sensibly, the reason, that she wanted her children to live for the people, and not for themselves. There was always a multitude crowding after the princesses when they were discovered to be in the Palace, but they never seemed to know it, but, under the guidance of Mr. Sanborn, the Secretary, or of some duke, unaffectedly moved about as if they were unconscious of their superior rank.

The other children—Arthur, Leopold and Beatrice—wear the family resemblance, and are not known to be remarkable for any particular traits of character. The whole family reflect the physiognomical features and the high moral qualities of their royal parents, and, though none of them are brilliant, all are favorites of the English people.

THE HOME.

Summer and Winter.

It was a bright and cheerful afternoon,
Toward the end of the sunny month of June,
When the north wind congregates in crowds
The floating mountain of the silver clouds
From the horizon—and the stainless sky
Opens beyond them like eternity.
All things rejoiced beneath the sun—the meads,
The river and the corn fields and the reeds;
The willow-leaves that glanced in the light breeze,
And the firm foliage of larger trees.

It was a winter, such as when birds die
In the deep forests; and the fishes lie
Stiffened in the translucent ice which makes
Even the mud and slime of the warm lakes
A wrinkled clod, as hard as brick: and when.
Among their children, comfortable men
Gather about great fires, and yet feel cold:
Alas! then for the homeless beggar old!

[SHELLEY.

The Miller's Daughter.

It is the Miller's daughter
And she is grown so dear, so dear,
That I would be the jewel
That trembles in her ear.
For, hid in ringlets day and night,
I'd touch her neck so warm and white.

And I would be the girdle
About her dainty, dainty waist,
And her heart would beat against me,
In sorrow and in rest;
And I should know if it beat aright,
I'd clasp it round so close and tight.

And I would be the necklace,
All day long to fall and rise
Upon her balmy bosom,
With her laughter and her sighs;
And I would lie so light, so light,
I scarce should be unclasped at night.

[TENNYSON.

Foolish Thoughts.

We are apt to believe in Providence so long as we have our own way; but, if things go awry, then we think, if there is a God, he is in heaven, and not on earth. The cricket in the spring, builds his little house in the meadow, and chirps for joy, because all is going so well with him; but when he hears the sound of the plow a few furrows off, and the thunder of the oxen's tread, then the skies begin to look dark, and his heart fails him. The plow comes crunching along, and turns his dwelling bottom side up, and as he is rolling over and over, without a home, his heart says "O, the foundations of the world are destroyed, and everything is going to ruin!" But the husbandman, who walks behind his plow,

singing and whistling as he goes, does he think the foundations of the world are breaking up? Why, he does not so much as know there is any house or cricket there. He thinks of the harvest that is to follow the plow; and the cricket, too, if he will but wait, will find a thousand blades of grass where there was but one before. We are all like the crickets. If anything happens to overthrew our plans, we think all is gone to ruin.—*Beecher.*

Self Respect in the Dining Room.

Where the things in common use are much inferior to those paraded before company, the family live in continual dread of accidental visitors, and meal-time is a season of secresy. A ring at the door-bell produces the greatest consternation; the mistress of the house snatches up a broken dish and puts in the closet; tells one daughter to hide the pitcher that has no handle, and another to carry away the old plates and common spoons, while she runs to the sideboard for better ones to supply their places. It is only a note, after all, so the whole scramble is for nothing. Now would it not be more refined and dignified, as well as more honest and comfortable, to live better every day, and make less parade before company? Instead of using ordinary ware, and parts of broken sets of different pattern when alone, and having an expensive set of French porcelaine in the closet, for state occasions, would it not be better to have blue and white India ware all the time? That can always be matched, and by using the same as best and common, you will never have a motly assembage of dishes and plates to be used up.

If you can afford to have expensive table furniture laid up for company, you can afford to use whole dishes and handsome spoons every day, and, by so doing, you will escape many uncomfortable feelings, and be far more likely to be hospitable and friendly. A person should have too much self-respect to use anything, when alone, that is unfit for her condition, or to wish to conceal anything that belongs to it. If you think it right to continue to use any article of glass or china, after it has been marred by some accident, do it openly—care not who sees it. If you are ashamed to have it seen, be ashamed to use it at all; a proper self-respect requires this.—*Mrs. Farrar's Young Ladies' Friend.*

Frozen Kindness.

The world is full of kindness that never was spoken, and that is not much better than no kindness at all. The fuel in the stove makes the room warm, but there are great piles of fallen trees lying on rocks and on the tops of hills where nobody can get them; these do not make anybody warm. You might freeze to death for want of wood in plain sight of these fallen trees, if you had no means of getting the wood home and making a fire of it. Just so in a family; love is what makes the parents and children, the brothers and sisters, happy. But if they take care never to say anything about it; if they keep it a profound secret as if it were a crime, they will not be much happier than if there was not any love among them; the house will seem cold, even in summer, and if you live there you will envy the dog, when any one calls him poor fellow.—*Dr. Holland.*

Baby's Rival.

There are many persons who make a practice of saying to little children, to whom has come the gift of a brother or sister: "Now, baby, your nose is put out of joint; you can never be mother's baby any more, for she has got another." This is said in thoughtlessness—often in glee; but it sinks like a stone into the baby's heart to which it is addressed. Were one to go to a grown man, and tell him that his house, and all that rested within it, had gone, none knew whither, but where he nevermore might hope to see them, it would not be a more cruel blow to him than it is to a little two or three years old child to tell him that he never can be his mother's baby any more. It makes him a poor, frightened little outcast in a moment; and any one that, realizing this fact, can so sport with the feelings of a tender babe, is worthy of being promoted to the office of chief torturer in some barbarous despot's court.—*Ex.*

NORWEGIAN LEGEND.—Two little boys were playing by the side of a river, and they saw the Stromkarl, or water spirit, sitting on the shore and playing on his harp. Then the children called out to him and said, "Stromkarl, why do you sit here playing? There is no salvation for you." Thereupon the Stromkarl fell to weeping bitterly, threw his harp away, and sank into the deep waters. When the boys returned home, they related to their father, who was a godly man, what had befallen. The father said, "You have sinned

against the Stromkarl; go back and comfort him, and tell him that he too shall be saved." When they went back to the river, the Stromkarl sat on the shore, weeping and lamenting; and the children said, "Weep not, Stromkarl, our father says thy Redeemer also liveth." Then the Stromkarl joyfully took his harp and played sweetly till sunset.—*J. Grimm.*

DOMESTIC ECONOMY.

The Art of Cooking.

BY MRS. HOYT.

I suppose the most of you know more about cooking than I do, for you have had homes, while I have, for most of the grown-up years of my life, had just a place in my neighbor's home. But I have an idea that my estimate of the Art of Cooking is quite beyond yours. I gather this from the fact that many of you seem to look upon it as a drudgery, and that you do not very much improve in it by the inevitable practice of years.

This cannot be just right. Whatever has to do with the needs and gains of this earth-life must, in itself, be noble. We cannot live without food. Civilized nations have always used more cooked foods than uncivilized. You can draw the inference.

Besides wishing to get rid of the trouble of it, there is a very general idea that good cooking is expensive. In close connection with the compliment to your friend's excellent table, comes the remark: "But they must spend a good deal, just living." As if money could be properly spent any other way. But this word, *living*, covers a larger ground than can be discussed in this page.

The item following, quoted from a Paris paper, led my thoughts more particularly to the economy of good and the expense of bad cooking: "Alexander Dumas has been offered by a Paris publisher, $12,000 down, and $2,000 a year, if he will write a Cook Book." Those who know this Dumas to be a genius, and one of the most popular authors of the age, will be surprised at this offer of a Paris publisher, if they do not at the same time remember that Paris is the centre of the culinary no less than of the fashionable world. No people give so much attention to cooking and come so near making it an art, as the French; and in no country can one live so well at so small a cost. The French people regard cooking more in the light of a profession than do any other people, and, as a consequence, economical and artistic cookery is carried to a success as nowhere else.

There is no reason why the plainest table should not be a good table, except that the common usage is to get up an ordinary meal with more carelessness than that which, in the richness and variety of its dishes, would be considered an extra one. When we come to consider the matter of everyday comfort and health more than we do the display and expense of company occasions, a substantial farmer's dinner will be as nicely prepared, as those elaborate ones in high places that are ruinous alike to the purses and the morals of the parties.

To dye a good Black.

As I saw an inquiry in the FARMER for a recipe for coloring black, I thought I would send mine, which I think cannot be beaten.

For 5 pounds of goods:—5 oz. blue vitriol, 8 lbs. logwood. Let the vitriol dissolve and boil. Check it with a little cold water and stir it up. Then put in the goods for one hour, with the dye, handling it with a stick. Stir often and keep it under the water. Take it out on a board, placed so as to drain in the kettle; then put in the logwood. After soaking over night, boil an hour and a half, then check it, and put in your goods for one hour; stir often, then take it out and air; then put in the goods and let it remain an hour and a half. Take it out and put in a pint of brine, or a teacupful of salt, and a half pint of soap. Stir the dye, and put in the goods for 15 minutes; then rinse, and wash well

MRS. E. O. FINN.

WOODVILLE, Jeff. Co., N. Y.

Three New Recipes.

SNOWDON PUDDING.—One-half pound beef suet shred very fine and small, one-half of a pound of brown sugar, one half of a pound of bread crumbs, three eggs, raisins round the mould. To be boiled three hours; wine sauce. Flavor to suit.

CORN GRIDDLE CAKES.—Scald at night half the quantity of meal you are going to use, mix the other with cold water, having it the consistency of thick batter; add a little salt and set it to rise; it will need no yeast. In the morning the cakes will be light and crisp.

ROCK CREAM.—This will be found a very ornamental as well as a delicious dish for the supper table. Boil a teacupful of the best rice till quite soft in new milk, sweeten it with powdered loaf sugar, and pile it up on a dish. Lay on it in different places square lumps of either currant jelly or preserved fruit of any kind; beat up the whites of five eggs, with a little powdered sugar, and flavor with either orange-flower water or vanilla. Add to this, when beaten very stiff, about a tablespoonful of rich cream, and drop it over the rice, giving it the form of a rock of snow. —*Godey's Lady's Book.*

HEALTH AND DISEASE.

Failing Eyesight.

When the sight is beginning to fail, the eyes should be favored as much as possible; this can be done—

1. By sitting in such a position as will allow the light to fall upon the page or sewing obliquely over the shoulder.

2. By not using the eyes for such purposes by any artificial light, or before sunrise, or after sunset.

3. By avoiding the special use of the eyes in the morning before breakfast.

4. By resting them for half a minute or so, while reading or sewing, or looking at small objects, by looking at things at a distance or up to the sky; relief is immediately felt by so doing.

5. Never pick any collected matter from the eyelashes or corners of the eyes with the finger nails; rather moisten in with the saliva and rub it away with the ball of the finger.

6. Frequently pass the balls of the fingers over the closed eyelids, towards the nose; this carries off any excess of water into the nose itself, by means of the little canal which leads into the nostril from each inner corner of the eye, which canal tends to close up, in consequence of the slight inflammation which attends weakness of the eyes.

7. Keep the feet always dry and warm, so as to draw any excess of blood from the other end of the body.

8. Use eye-glasses at first, carried in the vest pocket, attached to a guard, for they are instantly adjusted to the eye with very little trouble; whereas, if common spectacles are used, such a process is required to get them ready that, to save trouble, the eyes are often strained to answer a purpose.

9. Wash the eyes abundantly every morning If cold water is used, let it be flapped against the closed eye with the fingers of the right hand, not striking hard against the balls of the eyes. But it would seem a better plan to open the eyes in pure warm water, because warm water is more penetrating than cold; it dissolves much more readily and rapidly any hardened matter that may be about the lids, and is more soothing and more natural.

10. The moment the eyes feel tired, the very moment you are conscious of an effort to read or sew, lay aside the book or needle, and take a walk for an hour, or employ yourself in some active exercise not requiring the close use of the eyes.—*Hall's Journal.*

YOUTH'S CORNER.

Voices of Animals.

There is a chapter in the natural history of animals that has hardly been touched upon as yet, and that will be especially interesting with reference to families. The voices of animals have a family character not to be mistaken. All the canidæ (dog-tribe) bark and howl. The fox, the wolf, the dog have the same kind of utterance, though on a somewhat different pitch. All the bears growl, from the white bear of the Arctic snows to the small black bear of the Andes. All the cats *miau*, from our quiet fireside companions to the lions and tigers and panthers of the forest and jungle. This last may seem a strange assertion; but to any one who has listened critically to their sounds and analyzed their voices, the roar of the lion is but a gigantic *miau*, bearing about the same proportion to that of a cat as its stately and majestic form does to the smaller, softer, more peaceful aspect of the cat. Yet, notwithstanding the difference in their size, who can look at the lion, whether in his more sleepy moods, as he lies curled up in the corner of his cage, or in his fiercer moments of hunger or of rage without being reminded of a cat? And this is not merely the resemblance of one carnivorous animal to another; for no one was ever reminded of a dog or a wolf by a lion.

Again; all the horses and donkeys neigh; for the bray of the donkey is only a harsher neigh, pitched on a different key, it is true, but a sound of the same character, as the donkey himself is but a clumsy and dwarfish horse. All the cows low, from the buffalo roaming the prairie, the musk-ox of the Arc-

tic ice-fields, of the jack of Asia, to the cattle feeding in our pastures. Among the birds this similarity of voice in families is still more marked. We need only recall the harsh and noisy parrots, so similar in their peculiar utterance. Or take, as an example, the web-footed family. Do not all the geese and the innumerable hosts of ducks quack? Does not every member of the crow family caw, whether it be the jackdaw, the jay, the magpie, the rook in some green rookery of the Old World, or the crow of the woods, with its long melancholy caw, that seems to make the silence and solitude deeper? Compare all the sweet warblers of the songster family—the nightingale, the thrushes, the mocking-birds, the robins---they differ in greater or less perfection of their note, but the same kind of voice runs through the whole group.—*Agassiz.*

Enigmas, &c.

I am composed of fifteen letters.

My 13, 14, 12, 2, 9, 5, is a celebrated breed of sheep.

My 8, 1, 11, 11, 12, is a delicious fruit.

My 7, 9, 5, 1, is something often seen in this northern climate.

My 10, 11, 15, 13, is a name often applied to a small portion of land.

My 5, 6, 8, 5, 9, is an esculent plant.

My 4, 5, 12, 9, is a product of the farm.

My 12, 5, 3, 14, 4, 15, 11, 9, 7, is one of the bravest commanders of the Union army.

My whole is the name of a well-dressed, intelligent friend, whose stated visits, pleasing address and charming conversation bring much that is instructive into the pastime of winter evenings. E. P. MARTIN.

Historical Enigma.—I am composed of eight letters. Four of these letters stand for four of the world's greatest military chieftains—two living, two dead. The remaining letters spell the name of a flower more generally cultivated and admired than any other.

My whole is a political institution of the country

Geographical Enigma.—I am composed of three letters.

My 1 stands for two great mountain ranges, one in the Old and one in the New World, and both spelled with the same number of letters.

My 2 stands for two famous cities, one in the Old and one in the New World, and both spelled with the same number of letters.

My 3 stands for two ancient countries, one in the Old and one in the New World, and both spelled with the same number of letters.

My whole is a lesson we all must learn.

Scriptural Enigma.—I am composed of nine letters. Each of these letters stands for a Bible character.

My whole is the name of a lady eminent in the history of the French Empire.

Conundrum.—Who is the smallest man mentioned in the Bible?

Puzzle.—The puzzle of last month is continued. Thomas Batie, Tafton, Grant Co., and J. S. Drake, Black Earth, have sent in the correct answer, but they do not *tell*; they *show* by a diagram how to divide the land. The number of incorrect solutions sent in by our little friends show that they are interested, and by the next month some of them will be likely to make out a rule by which it may be done.

ANSWERS.

To enigma in last No.—Cat; sent in by M. S. Foster, Door Creek.

To Historical Enigma.—War; sent in by George and Isabel Durrie, Madison; Betsey Moffit, Eau Claire; Albion and Emma James, Richland; C. D. B., Windsor, and Thomas Williams, Ixonia.

To Conundrum.—Inviolate (in violet); sent in by C. D. B., Windsor.

G. E. C.—Your enigma is laid over for want of room. You see there can be too much of even a good thing.

C. D. B.—No; I do not want any enigmas that are not original. If a puzzle or conundrum is very pretty, it may be copied, but enigmas are so very easy to write that there is no need of using any not original. These sent should be *short* and have some *point* If used, credit will be given. A good many little folks have sent in enigmas without solutions. Of course, these cannot be used.

Some answers came too late for use. MRS. H.

EDITORIAL MISCELLANY.

Preparations for the State Fair.

It is elsewhere announced in this number that we are to have another State Fair in Wisconsin. Time, the last week in September. The place is to be determined by a committee consisting of the President and Secretary, after duly canvassing the most eligible localities within the State. The Premium List is ready for the printer, and will be issued as soon as the place shall have been determined. If there are any more towns that want it, *let them make their propositions before it is too late.* The farmers and mechanics of Wisconsin have been doing better financially for the years since the opening of the war than ever before. Money is more plenty with all classes, and another exhibition is needed. What greater inducements to action?

Other States, several of them, have kept on in the even tenor of their way, notwithstanding the distractions of the war, and, although there have been reasons for postponement in our case which did not exist in theirs, still it is not impossible that the farmers of this State have been a little less zealous for the cause of industry, than have those of our neighboring States. Let us see to it that this suspicion does not longer lie against us.

Industrial men of Wisconsin! you can, if you will, make an Exhibition this year that shall eclipse every success in the past. Now is the hour when you should lay your plans and begin the good work of preparation. And County Societies, a word to you: A magnificent BANNER is again to be offered for your competition on the most equitable terms that can be devised. Have an eye to this in all your plans, and see to it that no legitimate means are omitted that might insure your success.

County Agricultural Societies

Should begin the work of re-energizing themselves early in the season. There is nothing like taking time by the forelock. It is desired that, as fast as they agree upon the time and place of holding their fairs, they give us (the editor) due notice, so that the information may be made public through the FARMER. We can help every Society in the State a good deal more than they seem to imagine, and it will always afford us very great pleasure to render them all the aid in our power. Fairs held in contiguous counties should, if practicable, be so timed that interested parties may attend them all the same year. It will be found that this interchange of visits, and, perhaps, of competition in some departments, will add very much to their interest.

Contributions.—Thanks

To the many friends who, during the past month, in more than the usual quantity and variety, have favored us with communications on practical subjects. Most of them came too late for publication in this No., but, as a general rule, they will not spoil by keeping, and they enable us to offer the assurance that the April No. will be the richest No. of the year so far. Friends, we have not overrated your ability to render important aid to the editor in every department of the FARMER. We are now chiefly anxious that you should not weary in well-doing. When the habit is formed it's a very easy thing to write an occasional brief article for our pages on some subject that particularly needs the advantage of your experience, thought or observation. Don't fail to form the habit, and then we shall hope to keep you in the good way.

A Bill to Incorporate the Agricultural College

Is now pending in the Legislature. Next after the action necessary to the vindication of the national authority and the honorable ending of the war, this is the most important measure to be acted upon by our legislature this session. Congress, by a munificent grant of lands, has invited us to look to our own future welfare as an agricultural community, and we shall prove ourselves exceedingly short sighted if we do not promptly respond by such legislative action as will ensure the early establishment of this Institution. Ac-

cording to the provisions of the bill, (which has been prepared with the greatest care, after a thorough consideration, first, of what has already been done in the way of industrial education by other States and in foreign countries, and, secondly, of what is needed by our own particular State), the proposed Institution is to be not simply a college for instruction in the sciences which underlie a successful practice of agriculture and the mechanic arts, but also the supervisory head of the practical industry of the whole State; and to this end it is to be clothed with the powers of a Bureau of Statistics and a State Dept. of Agriculture After visiting many of the like institutions in both the Old and the New World, and after carefully studying and sifting the plans of all, an account of which has been published, it is our candid opinion of this scheme for the State Agricultural College of Wisconsin, as shadowed forth in the pending bill, that it is more simple, comprehensive and complete than any that have gone before it. Its adoption and execution by Wisconsin, in the spirit of its conception, would be worth more actual money to the State, within the next quarter of a century alone, than all that the war will have cost it.

To the never-failing objection of "hard times," we answer: We are bound to have the institution in actual operation within a limited period of time; it is a labor of years to establish such a college except with unlimited means; and, finally, there will, in all probability be no year within the next ten when the State and people together will be so well prepared to give the enterprise a *start* as now.

Correction.

The printer of the Wis. Farmer was in error in attaching our signature to the excellent article on Flowering Shrubs in the February No. It was from the pen of the editor of the Gardener's *Monthly*, and was so credited when it left us, as a selection for the pages of the Farmer. A. G. H.

Jottings from our Note Book of Travel.

GLIMPSES OF OLD ENGLAND.

It is the 16th of July. I have finished my inspection of the Exhibition, distributed my Reports to the representatives of all nations, collected some two thousand samples of their industry, packed my luggage, said good-bye to my friends, and have actually started home! Strange emotions fill the soul. The experiences of my late unpleasant voyage across the Atlantic; of my first view of the Old England whence my ancestors went out more than two hundred years ago; of a two months' residence in the great metropolis to which my thoughts have turned with longing so many times in other years; of a rapid but most interesting tour on the continent; of intercourse with many of the greatest men of the age;—all these have so lengthened my life that I seem to have lived here for years, and to think of America and the almost whole of life as a half-forgotten dream. But the definite thought of home, of the waiting dear ones there, and of the practical mission that brought me dispels the illusion and urges me on to the completion of my undertaking.

That I might be as little encumbered as possible, I ordered my trunk and boxes of specimens, books, &c., to be forwarded direct to Dublin, and have with me but a little bag as large as a lady's reticule and my faithful umbrella. The bag is a part of me, being bound to my side by a strap over the shoulder, and the umbrella will answer the purpose of a staff. Thus equipped I am ready for my homeward tour, via Birmingham, Manchester, Leeds, Newcastle-upon-Tyne, Edinburg, the north of Scotland, and the chief cities of Ireland.

The day is beautiful and not too warm for com ort. The London & Northwestern Railway seems to appreciate my desire to get on in my journey and carries me on at the rate cf fifty miles an hour. London recedes; broad cultivated fields of half-harvested grass and grain flit by on either side with the swiftness of the wind, and ere I had thought of it the white towers of Windsor Castle are in sight.

Slough is announced, and the passengers for Windsor tumble out. Of this most interesting place and its surroundings—Eton College, Prince Albert's Farm, and Stoke-Pogis, the burial place of the poet Gray, included—at another time. Buckinghamshire, Berkshire, and Oxfordshire, with their beautiful picturesque scenery, are among the most interesting midland counties of England, and well deserve a month's visit. Butter and cheese, and the rearing of calves, hogs and sheep for the great markets of London chiefly occupy the attention of the farmers, who in their magnificent estates give evidence of a degree of knowledge, thrift and enterprise quite in advance of anything I have seen in the more southeastern counties, on the way to either Southhampton or Dover. Of the scenery I can hardly say enough. Undulating meadows, and parks dotted with groves of oak, elm and chestnut; meandering streams eagerly making their way to the venerable Thames; stately mansions half concealed by the grand old trees that surround them, and now and then a lordly castle of the olden time;—there is nothing more beautiful, more enchanting than these features of the English landscape. It is quite possible that I have more enthusiasm than most men as thoroughly devoted to practical affairs—that I am more passionately fond of the beautiful in nature—but I would hardly think the soul of that man worth saving whose eye would not kindle with the light of a new joy on beholding, for the first time, the charming scenery along which lies this iron way.

Twenty or more villages have been passed, and I stand under the shadow of the ancient walls of

OXFORD,

Proud seat of the world's most renowned University.

"Ye fretted pinnacles, ye fanes sublime,
Ye towers that wear the mossy vest of time;
Ye massive piles of old munificence,
At once the pride of learning and defence,
Ye cloisters pale, that, lengthening to the sight,
To contemplation, step by step, invite;
* * * * *
Hail! Oxford, hail!"

More than eight hundred years ago this great university was founded—so long ago that history is uncertain as to the precise date. How has it grown since that small beginning! and what multitudes of the learned men of England and of the world have gone forth from its halls to enlighten and elevate or to mislead mankind!

The popular idea of Oxford is that of one grand College; whereas it really consists of nineteen colleges, each with its imposing array of faculty and students, yet all under one central government. These colleges have been founded at different periods, within the past several centuries, by wealthy men, aided by royal munificence, and for more than three hundred years have been a power in the English nation—not intellectually alone, but politically also. In the great revolution which resulted in the overthrow of Charles I, it espoused the cause of that unfortunate king, who made the university his headquarters, and it has since taken an active part in many of the struggles that have uplifted and eventually advanced the English nation; though as a rule, I am sorry to say, it has oftener than otherwise been on the wrong side. At present it elects two members to Parliament, and as the Chancellor is a member of the House of Lords, it is well represented.

I am happy to say that religious tests are no longer required, and that honors are, of late years, getting to go more by merit than by favor. True, a member of the peerage, or the eldest son of a knight or baronet is permitted to graduate with but three-fourths the proficiency of those who do not enjoy so high a rank, but then we have no fault to find with that, since it is that very privilege which is helping to undermine the sham aristocracy of which England makes so much account. Knowledge is power, and the more of it you drive into the heads of the middle classes the less sure is the foundation upon which rests the absurd prerogative of hereditary nobility.

We Americans who open our eyes with astonishment when it is proposed to endow

some college with a fund that shall yield an annual income of twenty thousand dollars, may be expected to open them wider when we are told, on good authority, that the total revenue of Oxford University is no less than one million, eight hundred and forty thousand dollars per annum!

The buildings of the University are, many of them, very fine, and their numerous turrets, domes, and spires of stone give to the city of Oxford a magnificent appearance, especially as seen from any of the hills which, like an ampitheatre, gird it round on every side.

Some of them are crumbling away with age, and are being repaired piecemeal by replacement; others look as though they would endure for another five hundred years. In front of one of them (Baliol College), stands a large elm tree, some three to four feet in diameter, grown up out of the ashes of those great martyrs, Cranmer, Latimer and Ridley. The buildings of the central University, considered as distinct from the colleges, form a handsome square about the famous Radcliffe Library, and of themselves present an imposing array.

A most interesting and instructive visit, this to the educational centre of the British empire. Off again by the railway, and this time by a slower train, that I may see more of the glorious scenery through which I am to pass. A half dozen towns of general interest, and then

WARWICK!

This place has long been famous in English history, and is still attractive by the fine old castle on the banks of the Avon, occupied successively by some of the most distinguished nobility of England. It will be forty-five minutes before I can take a train for Stratford, and I will spend them in viewing that relic of the feudal times. Only a few hundred yards to the old stone bridge across the Avon, whence the view of the castle is exceedingly fine. Built upon a bold rocky bluff of the river, its towering battlements are visible from a long distance on every side, and themselves command an indescribably beautiful prospect.

By a branch of the railway I am enabled to switch off and make a short visit to that Mecca of the literary world,

THE BIRTHPLACE OF SHAKSPEARE.

Stratford-upon-Avon is a quiet old municipal borough and market town, about 96 miles northwest of London, and with a population of three to four thousand. It was a place of some consequence at least a thousand years ago, and but for William Shakspeare would have been scarcely more important now.

The train stops, and by the winding way I turn my steps into Henley street, where stands the humble, time-worn cottage in whose low and narrow chamber the immortal bard first saw the light. A wooden frame filled in with brick, the outside timbers all exposed to the weather. The tooth of time has gnawed upon them some, but now they are kept varnished and may thus be preserved for centuries. The cottage is two stories high, the lower eight and the upper seven feet between the joints. The roof is steep, and over the doors and windows are hoods made of boards, supported by simple brackets. The windows are very small and of diamond-shaped panes about as large as my hand, set in leaden sash. I pull the bell—a modern improvement, probably, not enjoyed by the distinguished occupant of three hundred years ago—and am met by a neat looking English woman who invites me in and shows me the apartments, of which there are four now open to inspection. The other part of the house is undergoing repairs, and cannot be entered. The first room is paved with irregular stone, and contains articles of furniture believed to have been used by the Shakspeare family. The fire-place is wide, and there stand the remains of great andirons that look as though they were the progenitors of the whole andiron race. The room below was probably the kitchen formerly as now. By the narrow stairway from the kitchen I enter the natal chamber of the poet. There are other persons in the room who have

entered before me, but I scarcely see them, or note a word of the all they say of the engravings and photographs displayed for sale. It seems paltry and out of joint that this sacred place should be thus profaned. The ceiling is written all over with names in pencil, and the window panes also bear the autographs of diamond-fingered visitors. Among the latter I trace the names of Walter Scott and Lord Byron. By the window I sit silent, and reflect upon the unrivalled sway of the Monarch of the Mind whose childish feet from this then obscure place went forth to plant them on the throne of universal empire. How rare it is that a true genius is born into the arms of royalty. Genius is the great leveler of class, the contemner of those miserable assumptions whose only foundation is adventitious and changing circumstance. Shakspeare was the son of a common glover, and to the day of his death wore no title inherited or conferred. But what earl, or duke, or king would not give the empire of the world, were it his to give, could he but go down the ages with the simple name and imperishable glory of William Shakspeare!

For some two or three generations after the poet, this old cottage was used as a meat shop, and even recently was quite neglected. At present—thanks to some Yankee Barnum who came within a very little of buying it and transferring it bodily to America—it is the property of the Government, and at the public (*traveling* public, I mean) expense, is kept in a very neat and proper condition. The grounds on either side and in the rear include about a quarter of an acre of land, and are clothed with grass and flowers.

The tomb of Shakspeare is in Stratford Church, but a short walk from the cradle of his nativity, on the right bank of the picturesque and gently flowing Avon. Encircled by lofty elms and overgrown with ivy, it looks grand and venerable, and seems conscious of the ashes that repose beneath its sacred chancel. Here are the famous mural monument and bust, and here the stone, covering the poet's grave, with the following queer inscription, said to have been dictated by him:

"Good friend, for Jesvs' sake, forbeare
To dig the dust enclosed here.
Blest be ye man yt spares these stones,
And cyrst b; he that moves my bones."

A few mementoes gathered from the churchyard, and I am on my way across the fields, a mile or more, to the old cottage of stone and timber, thatched with straw, where was born and lived Anne Hathaway, the poet's other self. This venerable relic of other centuries seems to have been sadly neglected. Brambles are growing about, and though there are some indications of life within, I find no response to my repeated rap on the door. A sliver from the door-sill, a rose from the decaying walls, and I am off for the depot. To-night I shall sleep in the smoking, thundering city of Birmingham.

QUERIES AND ANSWERS.

Should there be a Wool Growers' Convention?

MR. EDITOR:—Cannot something be done by you towards getting up a Wool Growers' Convention in this State? You recommend, and justly too, the wool growing business, but the farmers in this region have never received more than from 50 to 75 per cent. of the real value of their wool. Thorough organization would remedy this. Will you not take the initiatory steps? I hope we may see something in the next number of the FARMER tending towards that point. O. P. UNDERWOOD.

AVOCA, Feb. 5, 1864.

[What do the people say? *We* think it would be very well.—ED.]

Cure for Stifle.

MR. EDITOR:—In reply to N. M., of Lodi, concerning stifle, I would say, exercise him either by riding or leading until he sweats freely,—then put the joint in proper position and pour twenty pails of cold water on the part affected in quick succession, and then put him into a stable and let him be quiet for three hours.

This cured a horse of stifle in this neigbor-

hood which was so bad that he had to be pushed out of the stable, dragging one leg. He worked well afterwards for several years, without any recurrence of the stifle, and has lately been sold for the cavalry service.

JOHN W. FORD.

BERRY, Jan. 22, 1864.

The State Fair, &c.

MR. EDITOR:—I saw in your last issue that a State Fair was in contemplation. I was glad to hear of it, and say, go on and have one. I will do what I can to help it along. Most of my neighbors want a Fair

I have two sheep; one is a Cotswold, and the other is a Leicester. Cotswold weighs 281 lbs., Leicester weighs 232 lbs. I bought them in Canada West of John Snell, stock breeder. If there is a State Fair, I shall show them for certain.

I am well pleased with the FARMER, and would not be without it, if it were $2 a year. Am better satisfied with it now than when I first subscribed for it.

JOS. H. GOULD.

STOUGHTON, Jan. 9, 1864.

A Man who has Chester White Hogs.

MR. EDITOR:—I enclose one dollar for the FARMER for this year. I think every farmer ought to take it. I am taking four newspapers, and I get more good out of the FARMER than out of all the rest.

I saw in one of the late numbers an inquiry for the Chester White hogs. I have the Chester White, the Suff lk, and the "Grass" hogs. I also have about 12 acres of the tame artichoke—cheaper than corn or any other hog-feed that is raised. D. O. STERDOCK.

STERDOCK'S FERRY, Clayton Co., Iowa.

Wants, &c.

W. Buckingham, of Mineral Point, wants to know who has Chester White hogs for sale. Why don't some one in Wis. advertise them?

J. B. Doolittle, of Delavan, asks where he can get an Italian Queen Bee.

W. A. Barry, of Kingston wishes to know whether the Yucca tree can be propagated from the seed.

Mr. John Rhodes, of Brighton, wishes to know the best method of constructing feed racks for cattle.

Geo. Brown, of Woodman, Grant Co., wishes to know where he can get bald or beardless barley for seed.

NOTICES OF NEW ADVERTISEMENTS.

Madison Mutual Insurance Company.

We again call the attention of our readers to the transactions of this Company, as illustrated by the annual statement of its affairs. In the magnitude of its operations, it now overshadows every other Company in the West, and yet it continues to wax greater and greater and to extend the limits of its territory further and further.

The figures reported by the worthy and able President and Secretary will speak for themselves. If no seriously false steps have been or are likely to be taken, in its management, we know of no reason why we may not expect the Madison Mutual Insurance Co. soon to rival in importance the largest and oldest companies in the East. Those of our readers who are not insured because they have not yet been burned out, and therefore never expect to be, should look over the list of losses paid by this Company during the year 1863, and note the large amount (over $84,000) saved by those who were prudent enough to have their property insured. What we have often said before, we say again—no person having property liable to destruction by fire should delay having it insured a single day. In the long run it unquestionably pays.

Changes have been made in the list of officers for the year 1864, but in the main the Board of Directors remains as it was. The office of General Agent was discontinued, and Col. Hastings is no longer connected with the Co.

The annual meeting was held, for the first time, in the new and handsome building erected by the Company, adjoining Porter's Block, last autumn. The valuable papers of the Company, which were liable to destruction in the old office, are perfectly secure in the ex-

cellent fire-proof vault of the new building, and—what is a thing of no little importance—the Company has henceforth a permanent "local habitation," as well as a great name. A neat brick structure with stone finish, three stories high, and well planned, is at once an ornament to the city, an advertisement for the Company, and a source of income.

Sorghum Machinery, Nurseries, &c.

The manufacturers of Sorghum machinery and the nurserymen of the country have waked up on the approach of spring, and chal'enge the attention of the farmers of the Northwest.

POWERS & SHERWIN advertise Sorghum mills and sugar cane seed, and Mr. Powers offers a large and liberal premium for the best 25 acres of sorghum grown the present year.

We have seen the Little Giant Mills in operation, and confess that the hickory hoop poles were put through with an ease and effect that surprised us. This mill has likewise a compactness and efficiency which commends it to favor. It also has an ingenious contrivance for an adjustable action of the rollers, which cannot fail to be an excellent feature. Messrs P. & S. are preparing to do a large business in the manufacture of mills and oth er apparatus, and the growing interest in the production of Sorghum syrup and sugar assures them of a large patronage. The $260 prize will surely not fail of the attention it merits.

SKINNER'S PATENT Climax Adjustable Sugar Cane Mills are also advertised. These mills have been thoroughly tested in many parts of the West, and, so far as we know, are universally esteemed. The principle of its peculiar feature—that of "adjustable" rollers controlled by levers which give an unvarying pressure, seems to be sound, and if the mill is practically open to no countervailing objection on account of said levers, we can't very well see how the Climax can be beaten. The working of this mill, whenever we have seen it operate, has been eminently satisfactory—the bagasse coming away thoroughly squeezed, and even oak grubs passing through as though nothing was the matter.

Mr. Skinner also advertises Cane seed and a Handbook on the culture and manufacture of Sorghum.

J. KNOX, of Pittsburg, advertises small fruits of superior quality, including grapes and strawberries in particular. We can recommend him with confidence.

A. G. HANFORD & BRO. advertise French pear seed, &c.; also *new and hardy grapes*. Their reputation for ability and integrity is well known to our readers.

H. B. LUM, of Sandusky, O.—the horticulturist and florist from whom we obtained last year so many rare varieties of flower seeds—offers for sale flower seeds, grape vines, cuttings, plants, &c.

RARE AND CHOICE Flower Seeds and Novelties by Hovey & Co., Boston; also Hovey's Magazine of Horticulture. This is one of the oldest firms in the country, and the magazine has long been among the popular horticultural magazines of the country.

GEO. J KELLOGG, of Janesville, offers a large assortment of Nursery stock at fair prices; also evergreen trees, ornamental shrubs, &c.

PHŒNIX'S BLOOMINGTON NURSERIES once more. To those of our readers who have taken the FARMER in the times past, these, the most extensive nurseries west of Ohio, require no notice from us. Mr. P. is a nurseryman of great enterprise and energy, and does not calculate to be behind any of his competitors in the country. It is from him that we have purchased our large stock of Concord Grapes for distribution this spring, and if the vines and other stock he furnishes us are to be taken in evidence of what other patrons may expect, we are entirely safe in recommending him to all interested parties.

SEE ALSO advertisement of Lalor's Sheep and Lamb Dipping composition; also of the Mineral Pt. R. R.; also of Salesmen wanted; also of E. & C. T. Wakeley's law firm. These gentlemen rank among the ablest lawyers in the State.

PUBLISHERS' CORNER.

Correction.

By some unaccountable mistake of the printer our Prospectus on last page of cover for two months past was made to read, "Six three cent stamps must accompany orders for Eastern publications and premiums." The mistake has escaped our notice until now. Please notice correction in this No.

Who are you, Gents.?

We have received several letters of late without date, post office or signature. Who is guilty of perpetrating these jokes upon us?

New Premium.

Six packages of garden and flower seeds to every new dollar subscriber before the 1st of May.

News Summary

Is crowded out by a press of advertisements just as we were ready for press.

Markets.

Milwaukee, Feb. 24, 1864.

Flour active, 5@10c better. Sales extra spring $5.50, Sugar River and Monitor $5 30. No. 2 flour $4.00, superfine $4.20@4.25. Wheat—No. 1 spring in store, 1.16@1.21

Oats—unchanged, 61@64c, delivered.

Corn—81@83, delivered. Barley—1.25..1.28. Rye—98c. Timothy—2.00@2.50. Clover—7.50@8.00. Flax—2.25@2 75.

Pork—7.75@8.25. Beef—4.50@4.75. Sheep—6.00@6.50 ⅌ cwt.

Wool slack at 65c best.

New York, Feb. 20. 1864.

Flour—extra 6.20@6.90. Wheat—Chicago spring, 1.56@1.58. Mil. Club 1.57@1 60. Winter red, 1.66@1.69.

Corn—1.27@1.28½. Oats—91@92½.

Wool—quiet, unchanged.

Gold—58. Silver—45@50. Legal tender notes, ¼@½ premium.

[Advertisement.]

SPECIAL PREMIUM.

Believing the Sorghum interest to be a great and important one to this State and the Northwest, and wishing to do what we can to develope it, we offer the following premium to all, who are disposed to compete for it, in the State.

For the best twenty-five acres of cane grown in the same neighborhood, by one or more parties,

A complete set of our most improved *Two Horse Separate, Geared Sorghum Machinery*, with Bagasse carrier, evaporator, heater, smoke pipe, skimmers, and all the fixtures complete for setting up and operating, worth at the shop $260, cash, and capable of making from 150 to 200 gallons of syrup per day.

Parties proposing to compete for the foregoing premium will need to send to me for entry blanks and circular of instructions, &c. The earlier attended to the better.

D. J. POWERS.

Madison, Wis., Feb. 20, 1864.

Fruit & Ornamental Trees

FOR SPRING OF 1864.

ELLWANGER & BARRY respectfully invite the attention of planters, nurserymen and dealers in trees to the great stock of Fruit and Ornamental Trees and Plants of every description, which they now offer for spring planting.

Standard Fruit Trees for Orchards.
Dwarf Fruit Trees for gardens.
Dwarf Maiden Trees for potting.
Small Fruits, including the newest and finest varieties of Gooseberries, Blackberries, Currants, Raspberries, Strawberries, &c.
Hardy Grapes for out door culture—over 70 varieties.
Foreign Grapes for vineries—60 varieties.
Figs, Oranges and Lemons, fruiting plants.

ORNAMENTAL.

Deciduous ornamental Trees, upward of 300 species and varieties.
Weeping or Drooping Trees, 25 distinct and beautiful varieties.
Trees with remarkable and ornamental foliage, 50 distinct sorts.
Rare and beautiful Lawn Trees.
Hardy Evergreen Trees, of all kinds and sizes, of beautiful form, frequently transplanted and sure to move safely.
New and rare Evergreens from California.
Flowering Shrubs—a great collection of over 300 different species and varieties of the most ornamental—large plants.
Climbing and Trailing shrubs, over 60 species and varieties.
Roses, the largest stock in America, comprising over 600 of the most beautiful sorts of all classes.
Pæonies, Chinese Herbacious, 40 of the finest sorts.
Superb double Dahlias, 100 select sorts.
Phloxes and Chrysanthemums, the finest new and old sorts.
Perpetual or Monthly Carnations, a large and superb collection.
Hardy Herbaceous Flowering Plants, upward of 300 species and varieties.
Gladiolus, the finest new and old sorts.
Green house and bedding out plants in great variety.
The entire stock is in perfect order; owing to the unusual mildness of the winter the most delicate trees have escaped injury.
The following catalogues, which will give prices and terms, will be sent prepaid upon the receipt of postage stamps, as follows: Nos. 1 and 2, ten cents each, No. 3, five cents, No. 4, three cents.
No. 1. A descriptive and illustrated Catalogue of fruits.
No. 2 A descriptive and illustrated Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No, 3. A Catalogue of Dahlias, Verbenas, Petunias, and select new green house and bedding plants, published every spring.
No. 4. A Wholesale Catalogue or Trade List, published every autumn.

ELLWANGER & BARRY.
Mount Hope Nurseries.
Rochester, N. Y., March 1, 1864. mh

KNOX FRUIT FARM & NURSERIES!

OUR New Catalogue of
Small Fruits for Spring of 1864
including
DR. JOHN A. WARDER'S REPORT
To the Cincinnati Horticultural Society of a visit to our grounds, during the Strawberry and Grape seasons, giving descriptions of varieties, modes of culture, &c., is now ready, and will be sent to all applicants, enclosing stamp.
J. KNOX.
mh1 Box 155, Pittsburg, Pa.

STATEMENT
OF THE
Madison Mutual Insurance Co.
FOR THE YEAR ENDING
DECEMBER 31, A. D. 1863.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 103, of the General Laws of 1858.

Total amount of accumulations		$473,170 34

ASSETS.

Unimpaired premium notes of policy holders	$398,256 36	
Cash on hand and due from policy holders and agents for cash premiums	67,747 48	
Real Estate	6,000,00	
Office furniture and fixtures	1,167 00	473,170 34
Whole No. policies issued		33,165
Am't of outstanding risks thereon		$24,621,935 94
Number of policies issued in 1863		11,107
Am't of outstanding risks thereon		$8,902,000 00
Am't premium notes therron		131,481 33
Am't cash premiums thereon, less commissions to agents		70,629 48
Am't interest collected and charged		1,999 55
Total am't losses reported		$34 551 43
Total am't losses paid		32,668 06
Losses adjusted and due, awaiting call		525 00
Losses adjusted and not due		none.
Losses unadjusted and awaiting further proof		2,008 23
All other claims against the company		815 31
Am't paid for furniture and fixtures		167 77
Am't of expired premiums		14,404 19
Am't paid for advertising and postage		1,011 38
Am't paid for printing		1,383 16
Am't paid for policy stamps		2,305 35
Am't paid taxes to Com'r Internal Revenue		416 68
Am't paid for exchange		113 64
Am' paid for cancelled policies		526 36
Expenses paid, including all compensation to Officers and Directors, stationery, clerk hire, rent, fuel, lights, and other incidental expenses		5,263 90

STATE OF WISCONSIN, } ss
Dane County, }

John W. Boyd, President. and Denison Worthington, Secretary, of the Madison Mutual Insurance Company, do solemnly swear that the foregoing statement is true and correct according to the best of our knowledge and belief.

JOHN W. BOYD,
D. WORTHINGTON,

Sworn and subscribed before me, this 23d day of January, A. D. 1864.

D. ATWOOD,
Notary Public.

DIRECTORS AND OFFICERS
OF THE
MADISON MUTUAL INSURANCE CO.
FOR THE YEAR 1864.

DIRECTORS.

J. W. BOYD, Walworth Co.
EDWARD O'NEIL, Milwaukee Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
ORRIN GUERNSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
JOHN Q. ADAMS, Columbia Co.
EDWARD PIER, Fond du Lac Co.
N. C JANES, Winnebago Co.
JOHN TOAY, Iowa Co.
H. PARKER PAINE, Minnesota.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. R. MONTAGUE, State Agent for Minnesota.

LOSSES PAID BY THE MADISON MUTUAL INSURANCE COMPANY IN THE YEAR 1863.

Sam'l M Wells, Summit. Waukesha co	$500 00
George Y Freeman, Galesvill , Trempeleau co	15 00
John Barnard Malone, St Croix co	3 50
A C Wiggins, Centre, Rock co	201 00
A Richmond, La Crosse	185 00
E Bement, Fitchburg, Dane co	821 00
T D & D M Kanouse, Cottage Grove, Dane co	253 47
J & D N Collar, Dover, Racine co	12 00
J J Reiser, Kendall, La Fayette co	4 25
J Wearne, Mineral Point, Iowa co	46 38
Wm Jewell, Dodgeville, "	78 90
Sam'l Blumer, New Glarus, Green co	8 00
D D Utt, Potosi, Grant co	2,073 24
Wm Cooper, Marshall, Dane co	675 37
D Sutton, Merrimac, Sauk co	10 00
M Montgomery, Union, Rock co	47 18
Alex Stewart, Troy, Sauk co	581 28
J C Loomis, Millville, Grant co	200 00
J B Harelson, Lancaster, Grant co	1,040 00
C Ostrander, West Point, Col co	649 56
M Weishan, Franklin, Sauk co	77 82
C Spann, Sheboygan Falls	14 50
Geo B Waite, La Prairie, Rock co	677 18
J Howlett, Black Wolf, Winnebago co	5 00
Wm Rentar, Pewaukee, Waukesha co	31 50
E M Blanchard, Waukesha	2 00
Jas Murphy, Hickory Grove, Grant co	15 25
R W Couch, Watertown, Jeff co	221 72
Jas Davis, Bradford, Rock co	5 00
H Bullard, Union "	55 00
C Williams, Mineral Point, Iowa co	25 00
Lars Moe, Dodgeville, "	171 25
P C Elliott, Freedom, Sauk co	10 00
D S Chase, Oregon, Dane co	29 45
Jos Smith, Hampton, Minnesota	325 00
Wm Misslich & Sons, Ithaca, Richland co	285 83
Geo A Harris, Marshan, Minnesota	166 56
Sam R Lane, Lowville, Columbia co	375 82
Sam King, Fountain Prairie "	113 06
L Ketchum, Sparta, Monroe co	200 00
B Johnson, Houston, Minnesota	157 47
T Henton, Otsego, Col co	21 00
J L Compton, Stoughton, Dane co	517 00
Wm Reynolds, Hebron, Jeff co	150 00
J AJennings, Franklin, Milwaukee co	15 00
A Skellinger, Tafton, Grant co	7 00
J Arnold, Plymouth, Rock co	760 00
E D Campbell, La Crosse	25 00
L K Walker, Metomen, Fond du Lac co	40 00
Wm H Swain, Verona, Dane co	25 00
Davis & Ranney, Burke, Dane co	134 00
Wm Sherman, Eagle, Waukesh co	20 00
Elizabeth W Davis, Brooklyn, Minnesota	388 42
A S Stiles, St Anthony "	700 00
T Dutcher, Sullivan, Jeff co	200 00
A P Ross, Mt Pleasant, Green co	600 00
J H Delamatyr, Middleton, Dane co	67 00
Geo Winter, Brooklyn, Green co	100 00
A Johnson, Union, Rock co	5 00
Sarah Vernon, Trempeleau, Trempeleau co	58 90
Harriet L Shaw, St Anthony, Minnesota	110 00
D Murray, Brighton, Kenosha co	163 00
S B Edwards, Sugar Creek, Walworth co	75 00
J Downey, Ottawa Wauk co	10 63
A G Dunning, Arlington, Col co	4 00
H Hallickson, Pleasant Spring, Dane co	25 00
J, Broesmer, Roxbury, "	270 00
J Eble, Sheboygan, Sheb co	430 00
N Mertes, Forest, Fond du Lac co	35 00
L Davitz, Hubbard, Dodge co	266 00
J B & M Witter, Troy, Sauk co	40 00
L F Parker, Dakota, Minn	14 75
T Cousins, Trempeleau, Trempeleau co	36 85
J H Knowlton, Janesville, Rock co	650 00
O Rollman, Calumet, Fond du Lac co	12 50
Wm Killips, New Berlin, Waukesha co	700 00

L Griswold, Newburg, Minn	15 00
Wm Rogers, Hebron, Jeff co	200 00
L Hater, Eagle Point, Chippewa co	200 00
Jno Hoover, Cannon City, Minn	500 00
A Coburn, Prairie du Chien	125 00
Cornelia S Merrill, Westport, Dane co	1,350 00
Wm H Read, La Prairie, Rock co	150 00
Frances Patterson, Afton, Minn	1,650 00
T A Stephens, Whitewater, Walworth	50 00
O Cox, Fulton, Rock co	40 50
Thos Mott, Roscoe, Minn	13 00
W Wright, Janesville, Rock co	118 00
P Schwartz, Troy, Walworth co	10 50
Sophia A Ragan, Ithaca, Richland co	430 75
Jno Carlson, Amherst, Minn	33 45
Jos Sykes, Little Grant, Grant co	15 10
Jos Hartman, Dekorra, Columbia co	692 68
R Gallagher, Doomi g Grove, Dane co	910 00
Jno Evans, Hebron, Jeff co	72 00
Dan'l Maxson, Albion, Dane co	180 00
S Burlingame, Ripon, Fond du Lac co	116 00
Jos Grundy, Harmony, Rock co	576 00
R Williamson, Hebron, Jeff co	20 00
W W Heding, Middleton, Dane co	214 70
L H Chase, Waupun, Fond du Lac co	725 00
A Pattridge, Pleasant Grove, Minn	10 00
E A Glover Troy, St Croix co	339 00
Thos Robbins, Jefferson, Jeff co	125 00
M J McCourt, Oshkosh, Winnebago co	700 00
P Trimborn, Greenfield, Milwaukee co	25 00
Clapp & Davis, Springfield, St Croix co	112 00
H Sprenger, Hubbard, Dodge co	441 00
E Newton, Sullivan, Jeff co	4 38
E R Maxson, Walworth, Walworth co	75 00
G D Pearce, " "	123 75
H H Hunger, Oak Creek, Milwaukee co	156 40
W Watson, Courtland, Col co	25 00
S W Smith, Lamartine, Fond du Lac co	310 80
Wm B Taber, Dover, Racine co	1,150 95
H Hewitt, Ripon, Fond du Lac co	92 00
F N Jung Wayne, Washington co	171 06
C Dunning, Farmington, Jeff co	800 00
Wm L Wilson, Harrison, Grant co	100 00
P Smith, Ironton, Sauk co	525 00
S & J Simon, Springfield, Dane co	23 00
Nancy J Ricker, Sherburne, Minn	769 00
A Jameson, Kingston, Sauk co	66 00
A Willis jr, Prairie du Sac, Sauk co	155 00
D O Callagan, Jackson, Washington co	12 00
A Bunter, Oshkosh, Winnebago co	400 00
F & H W Albert, Greenfield, Sauk co	26 00
A A Ross, Lake, Milwaukee co	560 00
C Napp, Waterloo, Grant co	400 00
J Henry, Lodi, Col. Co	5 00

This is in every sense a

FARMERS' COMPANY

Insuring nothing but farm and homestead property—giving *more protection to the farmer* than any other company, because insuring his grain in stacks, and his live stock in fields on farm, against damage by lightning as well as burning; and at a cheaper rate because it is careful in choosing its members and the kind of property it insures.

Twenty-five thousand farmers of this State are members of this company, and their families embrace over 100,000 persons whose interests are protected by its mantle!

Office in the Company's New Building adjoining Porter's Block, Madison.

D. WORTHINGTON, Sec'y.

FOR NURSERYMEN.

FRENCH Pear seed, growth of 1863, $2 50 per lb. Apple seed, clean and well saved, growth of 1863—$5 50 per bu.

Anger's Quince cuttings ..... $3 ⅌ 1000
Manette Rose cuttings ..... 3 ⅌ 1000
Osier willow cuttings ..... 3 ⅌ 1000
80,000 Red Cedar, 4 to 12 in ..... 5 ⅌ 1000

A G HANFORD & BRO.
mh2 Columbus Nursery, Columbus, Ohio.

Sugar Cane Seed.

WE have several bushels of the celebrated

QUAKER CHINESE CANE

Seed for sale. Price 37½ cents per pound. This seed was selected by Messrs. Blymyer, Bates & Day, manufacturers of Cook's Evaporators, as the best for distribution and general cultivation that could be found in their large circle of acquaintance, extending all over the northern States. It was raised in Eastern Pennsylvania, was selected by B., B. & Day, while growing. The same variety raised at the same place, was distributed by them last year, and gave the best of satisfaction, and we feel no hesitancy in recommending it to our customers. Put up in pound papers Two pounds will plant an acre. We have facilities for distributing this seed largely to parties ordering. The Trade supplied.

E. W. SKINNER & CO.
Madison, Wis., Feb., 1864. mh3

RARE AND CHOICE

Flower Seeds & Novelties

FOR 1864.

HOVEY & CO., BOSTON

HAVE now ready their unrivalled collection of German, Belgian, French, English and American Seeds, comprising all the novelties of any note. Their assortment includes the choicest varieties of

Balsams, Stocks, Portulaccas, Larkspurs Petunias. Verbenas, Zinnias, &c.

And all the best Florist's Flowers, viz: cinerarias, cockscombs, pansies, pelargoniums, carnations, &c., &c

Extra Prize Aster Seed

We offer an unequalled collection of Asters, in all the variety of Pivone, Pompone, Pyramidal, &c. of our own raising, which have been made a specialty for more than 20 years, and have been awarded prizes by the Mass. Hort. Society, as follows:

First Prize in 1841, '42, '43, '44, '46, '47, '48, '49, '51, '52, '56, '57, '60, '61, '62 and '63. Second Prize in 1846, '56, and '59. 16 varieties in separate packets, $1 50; 12 do. $1 25; 8 do. $1.

Catalogues of seeds, fruit trees, Greenhouse plants &c. forwarded to all applicants. mh3

MINERAL PT. RAILROAD

FROM Mineral Point to Warren, Ill., connecting with Ill. Central, Galena and Chicago Union, for all points east, west and south. G. W. COBB.
Supt.

THE MAGAZINE OF HORTICULTURE

FOR 1864.

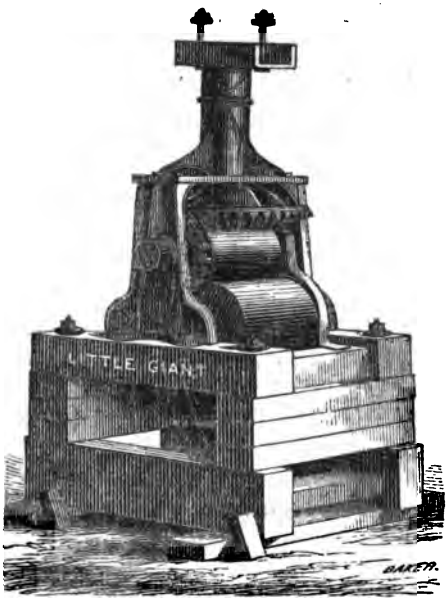
EDITED BY C. M. HOVEY, PRES. OF THE MASS. HORT. SOC.

A NEW volume (vol. 30) commenced on the 1st of January, 1864. It is published monthly, and makes an annual volume of 600 octavo pages, with numerous illustrations of fruits, flowers, &c. Terms $3 a year, club rates, 4 copies $8. The volumes for 1860, '61, '62, '63, handsomely bound, and subscription for 1864, $10. These volumes form a complete library, containing 2 500 pages of valuable information upon every branch of Gardening and Rural Art. HOVEY & CO.
mh3 Boston, Mass.

FLOWER SEEDS. Delaware Grape vines, Pæonias, Roses, Gladiolus, flowering shrubs, plants, cuttings &c. sent by mail, on receipt of price.

Price catalogues are now ready, and will be sent to all applicants. H. B LUM
mh3 Sandusky, Ohio.

SORGHUM MACHINERY
FOR 1864.
SUGAR CANE SEED, &c., &c., &c.



THE undersigned are embarking extensively in the manufacture and introduction of Sorghum Machinery for the coming season.

We have given the subject especial attention, and fully believe that our sets of machinery are more perfect and complete than anything else of the kind ever before offered to the public. Our

LITTLE GIANT
ADJUSTABLE HORIZONTAL
CANE MILLS

Of all sizes, from One Horse up to Eight Horse Power, and capable of expressing the juice for 100 to 500 gallons of good syrup per day. Are conceded on every hand by good judges to be the most *compact, simple, strong and durable* machines yet devised.

The Adjustable Action

Of the crushing rollers is the most perfect and complete ever seen. It wholly removes all danger of breaking and at the same time can be made to bring any amount of pressure to bear upon the cane, even to grinding it dry enough to burn, if desired.

We challenge all creation on the strength of our mills, and will make a

STANDING OFFER OF $500

For any Horizontal mill of the same size, weight and cost, that will stand an equal test without breaking—such competing mills to be of the style manufactured by the parties *for sale*, and not especially made of different materials for the occasion.

While our mills and our machinery are the best and most perfect made, still we **sell cheaper** than even poor, old style machinery is usually sold.

We shall be happy to forward circulars with descriptive cuts &c. to all proposing to purchase.

Fifty Bushels Javian Cane Seed

Of first rate quality. For sale by bushel or in pound papers. Read the certificate of the gentleman who raised it. He is an entirely reliable man.

Rosemond, Christian Co., Ill., Dec. 1864

This is to certify that I have cultivated the Javian Sugar Cane the past season, and have no hesitation in pronouncing it the best variety of which I have any knowledge, it being early in ripening, yields an excellent syrup and granulates readily. M. D. SEWARD.

POWERS & SHERWIN.

Madison, Wis., Feb 1, 1864.

BELLE COTTAGE NURSERIES.

1 1-2 Miles South of Depot, Janesville, Wisconsin.

IS the place to get apple trees that are adapted to Wisconsin winters, such as 1857 and 1864.

Small sized trees for successful planting, from high, open prairie soil.

Apple trees, crown grafted, best varieties, 4 to 6 ft. high $20 ⅌ 100.

Apple trees, common varieties, root grafted, 6 to 8 feet high $12 ⅌ 100.

he same when dug by customers, $10 ⅌ 100.

Seedlings, all sizes, $2 to $10 ⅌ 100.

Cherry, Pear and Plum trees, 12c to 50c, Evergreens, Ornamental shade trees and shrubs, Roses, Peonies, Climbing vines, &c., &c.

Choice selection of Grape vines, true to name—also currants, gooseberries, pieplant, strawberries, blackberries, &c.

Have spent much time and pains in cultivating the Raspberry—plants at wholesale or retail.

"Live and let live;" prices accordingly. To the trade and at wholesale as low as can be found West

All orders should be accompanied with the money—bank notes—or good references. Letters of inquiry with stamps, and plain directions how packed, and by what route shipped. Alter shipment, at the owner's risk.

GEO. J. KELL GO.

Janesville, Feb. 5, 1867. mh3

LALOR'S
Sheep and Lamb Dipping Composition.

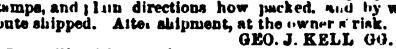
CURES scab, ticks and lice on sheep or cattle, adds over a pound of wool to the fleece, improves its quality, and adds to the general health of the sheep, without danger from taking cold.

For particulars apply to

LALOR BROTHERS, Utica, N. Y.

☞ Agent wanted for every State. mh3

MILWAUKEE AND CHICAGO
RAILROAD LINE.



TWO Through Trains Daily between Milwaukee and Chicago. Close and reliable connection in Chicago with all the *Eastern, Southern and Southwestern Lines.*—Also connects with the Racine & Miss R. R. at Racine, and with Ken., Rockford & Rock I. & R. at Kenosha.

Time as Quick and Fare as Low,

As by any other route, JNO. T. MOODY,
Mas. Trans., Milwaukee.

SALESMEN WANTED.

SALARY paid. Apply (with stamps) to

HARRIS BROS.
mh2 Boston, Mass.

NEW HARDY GRAPES.

A FEW hundred extra strong vines for early bearing, of the following five varieties:—Concord, Delaware, Diana, Hartford Prolific and Rebecca, at 75c to $1 each. **Red Dutch Currants** — strong plants, $5 ⅌ 100 $30 ⅌ 1000.

A. G. HANFORD & BRO.
mh2 Columbus Nursery, Columbus, Ohio.

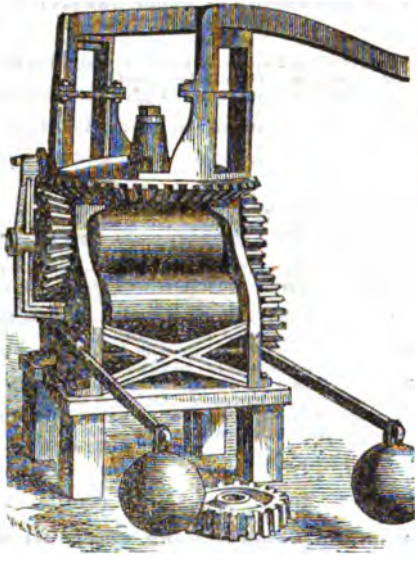
SKINNER'S PATENT

CLIMAX ADJUSTABLE

Sugar Cane Mills!

MANUFACTURED BY

E. W. SKINNER, & Co. - Madison, Wis.



THIS MILL has been before the public for the last four years and has invariably given the best of satisfaction. The lever principle is a new and distinctive feature in this mill, and secures a constant, unvarying pressure, and expresses the juice much dryer and with less power than any other mill. Our adjustable principle is no makeshift, but is real, and is all that is claimed for it. We have a pamphlet containing a full description of our various sized mills, with testimonials therefor, also a treatise on growing and working up Sorghum.

This mill took the *FIRST PREMIUM* at the Illinois State Fair last all, after a thorough and rigid trial. It receives commendation from the press and public everywhere. The reporter for the Chicago *Tribune*, from the Sorghum Convention held in this city on the 3d, 4th and 5th of the present month, in speaking of the mills on exhibition, remarks:

"The Climax Mill of Skinner's patent seemed to have the most friends, and warm approbation for it was expressed by all present who had used it the past season. Your readers will remember that this mill took the first premium at the Illinois State Fair at Decatur, last season and it is the only one we are acquainted with that adjusts its pressure by lever and weights, instead of by set screws.'

The reporter for the Chicago *Times* says:—"There were several other mills on exhibition, but none that possesses the same adaptability for work."

Madison, February, 1864.

GRAPE VINES.

THE demand for our vines is largely increasing every season. Parties wishing to purchase this spring would do well to order early, as the demand promises to exceed the supply.

Send for catalogue, enclosing stamp.

J. KNOX.

mhl Box 155, Pittsburg, Pa.

1862. 1863. 1864.

GOOD BETTER BEST.

THE BADGER STATE DRILL

AS MADE by R. J. Richardson is a great improvement over the old drill, both in workmanship and lightness of draft. This drill has always been the easiest for the team of any drill in use, and it is now rendered easier by substituting the chain for the evener, which makes the drill run much steadier and consequently easier handled. Experience has convinced all that the Badger Drill is one-fifth easier for the team than any drill used in this State.

An examination of its principle will satisfy any one that it is more accurate in its distribution of the seed than any other drill.

The workmanship of the drill will show for itself. Please examine it.

The Badger State Drill is sold at Janesville at the following prices for 1864:

9 Tooth, $75, Seeder $5.
10 Tooth, $80, "
11 Tooth, $85, "
12 Tooth, $90, "

The Badger has a Corn Planter to be attached to the drill that will plant two rows at once any desired distance apart. It drops in hills, any distance from 3 to 6 feet apart. The planter goes with the drill without any extra charge.

The Badger is warranted in every particular or no sale.

R. J. RICHARDSON.

mhtf Maker.

STRAWBERRY PLANTS.

ALL our plants were laid in and carefully worked last season Such plants are much more valuable than those produced in the ordinary way.

☞ Send for a catalogue, enclosing stamp.

J. KNOX.

mhl Box 155, Pittsburg, Pa,

CRAIG MICROSCOPE!

THIS is the cest and cheapest Microscope in the world for general use. It requires no focal adjustment, magnifies about 100 diameters or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2 25. or with six beautiful mounted objects for $3, or with 24 objects for $5. Address

HENRY CRAIG,
180, Centre street, New York.

☞ A liberal discount to the trade.

MADISON BOOK BINDERY.

B. W. SUCKOW

Blank Book Manufacturer & Book Binder.

PORTER'S BLOCK - - MADISON, WIS.

ACCOUNT Books of every description made to order of superior paper and workmanship at moderate prices, and warranted to give satisfaction in every particular.

All Kinds of Binding and Ruling

Executed to order, and in the best manner.

Wisconsin Farmer bound in neat substantial cloth covers at 40 cents per vol.

OLD BOOKS RE-BOUND IN GOOD STYLE.

The Subscriber, having had a long experience in the business, feels assured that he can give entire satisfaction to all who may favor him with their patronage, both in price and workmanship

Orders respectfully solicited.

B. W. SUCKOW.

GRAPES! GRAPES!

GRAPE CULTURE has been a specialty in my business for the last twelve years, testing by actual experiments a great number of new varieties, to ascertain those that would be suitable for the soil and climate of Wisconsin, Minnesota, Iowa and Illinois. No expense of means and labor has been spared in sifting out of the large number of worthless varieties those that would succeed with ordinary care and culture. During this time not less than two hundred thousand plants have been sent out from my grounds through the district of country above mentioned, a large number of which are now in successful bearing, and from which I have received the most encouraging reports. All of which will bear me out in saying that the Grape stands at the head of the class of small fruits, both in profit and pleasure.

To those that plant the Vine. I have now on hand, ready for spring delivery, the largest and finest stock of Grape roots ever before offered in the West—consisting of all the New and Old varieties that are desirable, together with a good stock of APPLE, PEAR, PLUM, CHERRY, with *Ornamental and Evergreen Trees.* I claim

1. That my vines are cheaper than can be purchased from any Eastern establishment, when the quality of roots is taken into account.

2. They are all grown in the open air, and not under glass and in forcing pots, as most Eastern plants are.

3. They are raised from large, healthy, bearing vines, of which I have a large stock.

4. That most of them will fruit the first or second season from planting.

Transportation is less, and I hold myself responsible for all mistakes in varieties that I send out.

All orders will be booked and filled as received. Vines and all the Small Fruits securely packed and delivered on railroad free of extra charge.

Send stamp for Descriptive and Price List.

ISAAC ATWOOD.

Rock Lake Vineyard and Nurseries.

LAKE MILLS, Jefferson Co., Wis.

NOW READY.

OUR NEW PRICE LIST OF FRUIT and ORNMENTAL TREES.

APPLE, BLACKBERRIES CURRANTS, RASPBERRIES, STRAWBERRIES, GOOSEBERRIES, PIE PLANT, LOCUSTS, MAPLES, HONEYSUCKLES, SPIREAS, SYRINGAS, TAMARIX, WEIGELIAS.

EVERGREENS.

GARDEN SEEDS, &c.

And will be sent to all applicants, free of charge. Agents wanted to sell first class nursery stock. Our Seeds are Western grown and put up expressly for the Western market. Everything warranted true to name

O. S. WILLEY & CO

Vine Hill Nursery.

MADISON, Wis. Jan., 1864.

E. & C. T. WAKELEY.

ATTORNEYS AT LAW.

OFFICE IN UNITED STATES BLOCK.

MADISON.....WISCONSIN

☞ Special attention given to cases in the Supreme Court

F. WAKELEY. mh10 CHAS. T. WAKELY.

DENTISTRY.

Dr. A. E. COOK, - Surgeon Dentist.

INVITES persons wishing Artificial Teeth to call at his Office and examine specimens, inserted on Gold or Vulcanite, &c.

Full sets, upper or lower, for $15, and upward, depending on the material used for plates.

Persons coming from a distance need remain but a few hours at the office to have a fine set of teeth.

All branches of the profession promptly attended to.

Entire satisfaction guaranteed

☞ Teeth extracted without pain. ☜

Office on Pinckney St, over Jones' Hardware Store.

Madison, 1864. fe64

G. T. WINSLOW,

WHOLESALE AND RETAIL DEALER IN

Millinery Goods, Bonnets, Hats,

Caps and Headdresses,

In PORTER'S BLOCK, North corner Capitol Park.

Madison, Wis., Sept. 29, 1863.

GREAT WESTERN

NURSERIES.

TOLEDO, - - - - - OHIO.

WE have an extra large Stock of nice grown trees, consisting of

APPLE,
DWARF PEAR,
ORANGE QUINCE,
NECTARINES,
GOOSEBERRIES,
BLACKBERRIES,
GRAPES,
CURRANTS,
STRAWBERRIES.

Evergreens and Hardy Ornamental Shrubs.

All of which will be sold at low prices.

Trade List and Catalogues sent to applicants.

REITER & MADDOCKS.

TOLEDO, O., 2.3t

TENTH ANNUAL REPORT

OF THE

DODGE CO. MUTUAL INS. CO.

January 1st, 1864.

Amount of Capital Jan. 2d, 1864.....$94,377 96

CONSISTING OF

Premium Notes.....	$80,014 12	
Real Estate and Office Furniture...	836 49	
Cash on deposit and in Co's Office..	2 096 53	
U. S. 5.20 Bonds.....	2 500 00	
Cash loaned on Call.....	2,149 00	
Bills Rec having from 1 to 6 mos. to run.....	6,781 82	
		$94,377 96
Whole No. Policies issued since Jan 1, 1863...		1,210
Whole No Policies outstanding Jan. 1, 1864..		6.010
Whole amount at risk thereon.....		4,738,538 00
Cash Premium.....		9,390 16
Cash received for interest, and other sources,		875 37
Paid unearned Premium.....		64 41
Paid expenses of Officers. Agents, Printing, Postage, Rents, Fuel, Stamps, Taxes' &c.....		5,247 86

Paid the following Losses since Jan. 1 1863:

Peter Phelan, Farmington, Jefferson co.....	270 38
L C McCleary, Sextonville, Richland co.....	8 00
J S Hobart. Royalton, Waupaca co.....	15 25
E R Disbrow, Taycheeday, Fond du Lac co.....	250 00
G W Anderson, Princeton, Green Lake co.....	650 00
G Madsen, Cato. Manitowoc co.....	15 25
D Mauser, Ellington, Outagamie co.....	15 62
Platt Fish, Dellona, Sauk co.....	667 00
J A Northrup, Clyman, Dodge co.....	615 20
Eliza A Mansfield, Greenbush, Sheboygan co.....	4 13
Carl Rusch " "	13 00
N Blodgett, Stockton, Portage co.....	150 00
F Steink, Sr. Marie, Green Lake co.....	388 00
Alvah Knapp, Metomen. Fond du Lac co.....	43 86
Cecelia Driffarat, Mashfield "	222 50
Philip Goetz, Newton, Manitowoc co.....	67 25
J Winberger, Leroy. Dodge co.....	63 75
F Rathermel. Plainfield. Waushara co.....	12 00
J N Hall, Forrest, Fond du Lac co.....	450 00
Rudolph Jaeger, Franklin, Sauk co.....	92 50
C L Gould, Sheboygan Falls, Sheboygan co.....	209 00
G W Nelson, Princeton, Green Lake co.....	300 00
August Rork, Farmington, Jefferson co.....	300 00
Total.....	$4,813 69

There are no unsettled claims against the Company of any kind. All claims have been adjusted promptly and paid. We still adhere to our rule of insuring nothing but *Farm Property and isolated Dwellings*. Our capital is steadily increasing and the Company stands second to none, and the risks they assume are of the safest kind.

We ask your continued patronage and that of your friends.

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THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

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The Agricultural College in the Senate.

REMARKS OF SENATOR VAN WYCK.

The question being on ordering the Agricultural College bill engrossed and to a third reading, Senator Van Wyck, from Kenosha county, arose and said:

MR. PRESIDENT:—Before this bill shall pass to a decisive vote I will ask the indulgence of the Senate while I present a few words in its behalf, both as a member of the Committee and as one of the representatives on this floor of the great interest which it proposes to benefit.

It is unfortunate, Sir, that a necessity should exist for the introduction of a measure of such general interest amid the exigencies of a great war, when considerations of public economy may possibly lead many friendly to its objects to hesitate in its support.

The importance of immediate action in order to secure compliance with the terms of the grant of Congress donating the lands have seemed to leave to the Committee no other alternative. It may also serve as some sanction to their action to recall that times of war have often been periods of great mental activity, and of progress in art and science, and that institutions like this, established under similar circumstances, have frequently remained the noblest monuments of energies and activities which public perils have first called forth.

It is true that this is a moment in which long protracted war with its attendant duties seems to menace us with some of its usual financial difficulties, yet it is a question worthy of most careful consideration whether it will be wise for us for that reason to withhold those efforts by which we may be best enabled to sustain their pressure. Can we afford to suspend our exertions in procuring for our State those educational influences which are best designed to aid in developing its resources and increasing its productions?

Amid the convulsions and "wild uproar" of war, civil life has still its functions and duties—has yet its mission of promoting the welfare of the State by educating its citizens and increasing its productive power.

If these are not to be intermitted or suspended can we make a better bargain financially considered for the educational interests of this State than by an advance of thirty thousand dollars to secure the sum of three hundred thousand to be applied in acquainting its farmers with systems intended to give new facilities and augmented power to their industry?

It is also unfortunate that the large and important class who are most interested in the objects of this bill are not themselves united in a just estimate of its advantages. Hundreds of active, intelligent farmers will rejoice in its passage. Many more will perhaps regret it as of no practical utility, and a waste of public money. Were it otherwise, were the farmers of this State united in this request, a public sentiment would have been created, and an influence thrown in and around these halls, which, when the great department of

agriculture should appear here, as now, to ask at our hands of its contributions the moderate sum—the paltry sum, I had almost said—of thirty thousand dollars, would quickly silence all cavil and objection.

Agricultural Colleges differ, Sir, from all other collegiate institutions in which the sciences are taught, by their usual connection with a model farm, where the principles of science are practically applied under the direction of scientific and experienced men. They proceed on the theory that farming is an Art as well as a Science, and propose to improve present systems by the introduction of new methods, and by experiments which, if attempted by individuals without the competent knowledge, must prove expensive and unsuccessful. It is this distinction which renders it undesirable and impracticable to connect the system of instruction in all its parts with the existing collegiate institutions of the State.

I am no enthusiast, Mr. President, in the plan of *producing* practical farmers through the medium of books and colleges, yet I am not insensible to the great advantages which will accrue to the farmers of this State from a more thorough acquaintance with those natural laws on which is based the success of their daily operations. And I shall rejoice in the establishment of an institution in which the sons of farmers may be instructed in scientific principles, without those associations and influences which too often weaken their attachment to their own profession.

While especially adapted to the wants of farmers, this Institution, by its Scientific and Polytechnic departments, cannot fail to confer important benefits upon the Mining, Manufacturing and all the Industrial pursuits of the State.

The principle upon which it is founded is the *education of our industry*, whether engaged in the production of food, or in those other kindred arts which enable us to command the vast resources of nature for our convenience and enjoyment.

This Institution is intended also by the terms of the bill to perform a service which in this enlightened age is regarded as almost indispensable to the well being of every state. Bureaux of Agriculture have been established at considerable expense in several States of this Union for the collection of industrial statistics and reports—the importation and distribution of new varieties of seeds and plants—and the introduction of improved implements.

This important office the bill devolves upon the faculty of this College, thus procuring an exceedingly valuable service at moderate expense.

The value of institutions of this class is no longer a question, and certainly here needs no argument; yet, suffer me to direct attention for a moment to the remarkable manner in which the rapid increase of their number and the liberal endowments made for their support have in many enlightened countries indicated the growing appreciation of their advantages.

In 1840 there were but nine Agricultural Colleges in all Europe. There are now more than five hundred. Russia alone has sixty-eight. Seven of the States of this Union have established them, and bills are now pending for the incorporation of such colleges before the Legislatures of nearly all the other Free States. One such institution in Europe has received the sum of five hundred and twenty-five thousand dollars, besides seventy-five thousand dollars for its annual support.

In our own country, Maryland has appropriated fifty thousand dollars—an equal sum being raised by subscription—and six thousand dollars to defray its annual expenses. Pennsylvania has appropriated fifty thousand dollars twice—in addition to a farm and fifty thousand donated by the people. Wherever they exist they have been found valuable auxilliaries to industrial and social progress.

There is one view of this bill, Sir, which appeals very powerfully to my own sympathies and approval.

In founding this institution, the State organizes, as it were, a department of Agriculture, and recognizes the claims on its attention of its most important branch of industry —recognizes, in fact, the rights of labor to special legislation for its elevation and improvement. At a moment when passing events are so triumphantly vindicating the great advantages of free labor, I conceive that this State is eminently fortunate in having the opportunity to signalize its confidence in its own system, by the establishment of an institution so well calculated to augment its power and to add to its culture and ornament.

It is an argument, Sir, frequently employed against this measure, and from its general acceptance worthy of notice here, that "all former investments of this character on the part of the State have proved entire failures, and that further advances in this direction are but a waste of the public money." The history of the institutions of this State is more familiar to many here than myself. Yet, when I recall the fact that most of the now flourishing colleges of our country have passed through a similar period of struggle and unproductiveness—which seems indeed an inseparable condition of their infancy—much as our success in this regard may have fallen below our anticipation and the early promise, I cannot but entertain the hope that the future of these even will prove far less gloomy than their present condition may lead us to apprehend.

But, Sir, whatever may be their history, or destiny, I am unwilling to interpret the lessons of experience as counseling, because of past errors, a hopeless and fruitless inactivity.

Former mistakes, as I comprehend their use, should serve as guides in our future action, but not discourage further exertion and enterprise.

It is also said that "farmers do not desire the establishment of this college—that they do not need it." There is a spirit abroad in our land in respect to farmers, which I think is much to be deprecated, and which often leads us to listen too readily to the suggestion of the less enlightened and liberal of their number. It is the disposition to accept a low standard of education and refinement as the measure of the farmer's wants and capacity. It is this spirit which has surrounded many European cities with boors and peasants, and has kept them so. If heeded, it will close our seminaries of learning, just as even now it seeks in many districts to close our common schools.

This was not the early American doctrine, and never can become such, but to our detriment as a nation. The age that witnesses the degradation of this class in its relation to the other classes of society, will mark the decay of our social system and national character. And, Sir, I fear, unless the advantages shall be afforded this class which are extended to almost every other—the means be given of informing them more thoroughly in the principles of their profession—unless we multiply influences which in these days of progress will enable the farmers to keep pace with the other classes of society in all that can instruct and refine, that age is rapidly approaching.

I am in hopes, Mr. President, that the bill will pass without further amendment, as I believe that in its present form it will best accomplish its object. I shall vote for it because the conditions of the grant seem to impose the necessity of immediate preparation; because the honor and faith of the State are in a manner already pledged by its acceptance; because the financial interests of the State for many years to come may not be more favorable to the enterprise, and the State cannot afford to wait for its benefits; and because it is my hope that this young and richly endowed State of Wisconsin shall possess, and that speedily, all the advantages and educational influences which any other enlightened country or sister State may have found instrumental in the cause of social progress and civilization.

[The bill was also ably supported by Senators Chandler, M. K. Young, and others. Ordered to a third reading by 19 ayes to 9 noes; rules suspended, and put upon its passage by same vote; passed by same vote.—Ed.]

Work for April.

Cleaning up must be thoroughly attended to now, if it has not already been done. Cellars must be cleared of all decaying vegetables, and well whitewashed; the health of the family demands it. The door yard should be cleaned up nicely, and the wood house, chicken house, piggery and stables must not be overlooked. Everything that can be converted into manure must either be put into the compost heap or upon garden and fields. Frosty mornings will make the work of sledding them out convenient and easy. We repeat it, CLEAN UP!

Your Buildings, Implements and Fences—Have you neglected their repair? Then go about it without an hour's delay.

Live Stock—Now is a critical time with it. Use your best efforts to make the feed palatable, and let there be no stint as to quantity. You had better buy of your more provident or more fortunate neighbors, or do almost anything rather than let your stock—especially your working animals—run down now. Animals about to come in with young must be kept as much as possible by themselves, and have a nourishing diet, calculated to keep the bowels in good condition. Roots are needed now if ever.

Winter Grain may be rolled with great advantage as soon as the frost is fairly out of the ground.

Clover is conveniently sown upon winter wheat immediately after a light fall of snow, of which we shall probably have one or more during the month.

Spring Wheat, Rye and Barley—Get them in as early as practicable; the earlier the better, as a general rule, after the ground is free from frost. Remember the clover here also. A few pounds to the acre will furnish excellent feed after harvest, and put the ground in good condition for the next crop.

Planting Fruit Trees—Do it thoroughly and carefully. More trees suffer from the stupidity of those who plant or neglect to cultivate, than from the unfriendliness of the climate. For most reliable varieties see lists heretofore and in this No. published. Prepare the soil by draining and deep plowing; preserve as many roots as possible and keep them moist until planted; smoothly cut off any that are wounded; plant in an excavation large enough to allow the roots room without cramping, and carefully fill in the fine earth, working it in with the hands about all the roots.

Trees injured by Freezing.—Cut back the black and dead branches to the live wood. Wounds by gnawing of rabbits or mice may be healed by binding on a plaster of cow dung mixed with clay.

Grafting—Now is the time to graft apples. See article on that subject in Hort. Dept.

The Small Fruits—Don't be without them another year. They can be grown almost as well as not None but an untutored savage is pardonable for neglecting them. Currants, gooseberries, raspberries, strawberries, blackberries, grapes—what a luscious list! See Hort. Dept. for information as to what, when, and how.

Garden Vegetables—Start them early; and if your variety has been confined to lettuce, onions, beets, and cabbage, you would do well to extend it. See Hort. Dept, and get your hotbeds a-steaming at once, if thus long neglected.

Flowers.—"What, flowers!" Yes sir, *flowers.* They are sown all over the earth by the careful hand of God, and do you dare to scorn their cultivation, on the assumption that they were made solely for sickly girls and puttering old ladies? Flowers have an elevating and refining influence upon all who beheld them. If you would increase that effect upon yourself and children, encourage their cultivation in and about your own home. They will help to make the old homestead an oasis in after years, and your own memory more dear to all who call you father.

A SURE WAY TO KILL CANADA THISTLES.—Commence plowing them as soon as they begin to show themselves in the spring, and continue it through the season as often as they make their appearance, and you may rejoice in the victory you have gained over this prickly pest. G. E. S. F.

Russia at the World's Exhibition.

Grand old Russia next—Russia, whose vast empire covers the whole of northern Asia, the half of Europe, and likewise a large area in northwestern North America. Eight millions of square miles, think of it! The whole of North America, from the Arctic sea to the isthmus of Darien, has an area of eight and a half millions—only one one-seventeenth more. True, her territory, much of it, lies within the polar zone, but then she also embraces the temperate, and almost rests upon the tropics! Great rivers, lakes, and seas water her fertile lands and serve as channels for her growing commerce; mines of copper, iron, lead, silver, platinum and gold are there, and salt, saltpetre and coal also abound; quarries of marble; and immense forests of timber;—all these constitute the material foundation for a powerful as well as a vast empire.

Let us look in upon the Russian Court and get some better idea of what her seventy millions of people are doing. A magnificent display!

Minerals.—Perman iron, the best in the world; lead, salt, and saltpetre from Poland; copper and beautiful slabs of malachite from the Valdai and Ural mountains; platinum from the Ural mines, the richest known; and gold and silver in large quantities, also from the slopes of the Urals.

Woods.—Specimens of fir, larch, alder and birch from the north, and oak and other timbers from the more southern portions. The great forests are in the northern portions of the empire, however, and the south is hardly well supplied.

Skins and Furs, taken from the animals which abound in those forests and on the vast steppes of Asia, are especially abundant. Beautiful tanned robes of the reindeer, of the bear, the Astrakhan lamb, the silver fox and many others.

The Products of Agriculture are numerous and highly interesting. Rye is the common food of the peasantry, and is produced in greater quantities than any other grain. Wheat, barley, oats and every other cereal are also grown in great abundance. Total annual production of the cereals in European Russia, about fifteen hundred millions of bushels. The samples of grain here on exhibition are very fine. Flax, hemp, and silk are also represented. The two first named are produced in vast quantities and constitute a leading export. The silk is produced in the extreme southern part, where the mulberry flourishes. Tobacco, the sugar cane, and even the olive are also products of considerable importance. Much of the sugar, however, is produced from the beet; the annual amount being scarcely less than one hundred million pounds. The domestic animals are of every kind known in civilized countries, from the reindeer of the Arctic shores, to the camel of the Crimea and the Caucasus. Their hides and hair, and articles manufactured therefrom, represent them.

Manufactures, in great number and variety. Leathers and moroccos from Astrakhan, Kasan, and Taurida; carpets from Smolensk and Iversk; sail-cloth from Moscow; silks from St. Petersburg and Moscow; fine Cashmere shawls from Penza and Ekaterinoslaf; hosiery from Sarepta; tapestry from Isa; paper from Kaluga and Moscow; cotton and linen goods from Poland and other provinces; fire arms, cutlery, and many beautiful articles made of the precious metals, from St. Petersburg and Tula; sugars, soaps, tobacco, carriages, and a thousand other things from many parts of the empire; and, finally, oil paintings, books and charts, beautifully illustrative of the rapid progress of Russia in the arts and in education.

No nation of the Old World is making more rapid strides in the civilization that especially characterizes the present age, and none is more deserving of the encouragement of the other enlightened nations.

To the Hon. Geo. Peterson, Counselor of State and Commissioner to the Exhibition from the enlightened government of the great Czar, many thanks for his generous courtesies and

most cordial treatment. May Russia and America be ever, as now, the warmest of friends, and co-workers for the elevation and progress of man.

Roots vs. Fallow.

The spring work begun, the plans of the farm all arranged for the season, and yet how few of you have carefully calculated the value of the root-crop? It is not strange that we recommend it, nor will it appear so to you when you fully understand the culture, nature and effects of it upon land. We have placed it against fallow, as being of greater value in many respects, and particularly for the purpose of cleaning or preparing soils for the next cereal crop.

The cultivation of roots, if it be done properly, leaves the ground in an excellent condition to receive the next crop of seed. To insure a good crop of roots, the ground must be plowed deep, the cultivator and hoe must be used regularly to destroy the weeds and grass. This leaves the surface soil loose, with every chance for the air to act upon or decompose it. The constant stirring pulverizes it, and the hoeing destroys all that you can by fallowing. Besides the roots seek out that substance in the soil that is not taken up by the cereal grains, which substance is often injurious to their growth. What the root crop extracts from the soil in its growth, being of no practical use to the grain crop, is so much gained. Roots, having such large and numerous leaves, we are led to believe, derive a great amount of nourishment from the air. That which they take from the air makes no one the poorer. As the principal part of their growth and value is absorbed from the air, this is a matter of profit again, aside from their effect upon the soil in leaving it loose and healthy for the succeeding crop.

The cost of cultivating a root crop is greater than that of fallowing, no doubt; but let us observe the results of each labor. We fallow to kill the foul weeds or grasses in the soil, to loosen it that the air may permeate and decompose it, to make it light and give it a healthy condition for the coming crop. In cultivating a root crop *all* this is accomplished. After you have fallowed, you have a less chance for a good crop succeeding than if you planted roots, for land may be worked too much, in which case all your labor is lost for two years. Now the cost of cultivating a root crop, up to the time of harvesting, is no more than the cost of fallowing, if properly done; hence up to that time your account stands balanced, as regards cost, your chances for a good succeeding crop, in almost every case, are better, while your land has not been idle or impoverished, rather improved, and you have a practicable, successful rotation of crops, so necessary to good farming.

The planting of your root crop is at a time when your other spring's work is complete, its tending is both before and after haying and harvest, when you have the most spare time—the harvesting of it is in the fall when you are through seeding and before corn-husking. Your time, being divided, has its appropriate work. The amount of roots grown per acre often exceeds five, six, or seven hundred bushels, which, if sold as low as five cents per bushel, your pay for harvesting, placing in the cellar or burying, will be twenty-five, thirty, or thirty-five dollars per acre, which is more than you get for an acre of wheat, all told.

As to their value for feeding stock, it is, at least, fifty per cent. greater in proportion to its cost, for, mixed with the dry food that must be fed during the long winter months, it does away with the consumption of a large amount of water, difficult to get—keeping the animal in a healthy condition, fattens readily, keeps a fine coat on your horse, increases the quantity and quality of milk from the cow, promotes the growth of wool on sheep, and, in fact, is the cheapest and most profitable food that can be fed with hay or stalks to stock during the winter. Mixed with animal manure the coarse straw and stalks are more easily decomposed than when grain is fed.

Agricultural journalists have long been laboring for the root crop to be introduced ex-

tensively among the farmers as a source of vast wealth and profit. It should receive the attention of every farmer until its true value shall have been made known and felt, and taking the place of fallowing will show that the farmers have their eyes open to the true source of their wealth—that their intelligence is placing the science of agriculture in all its departments upon a permanent and honorable basis. F. M. G.

Sorghum Experience.

Mr. Editor:—I was intending to come to the Sorghum Convention and bring some samples of syrup which I think hard to beat in any country. It was manufactured on Cook's Evaporator, No. 4, copper, which I think the best, as I have never seen a first rate article made on any other. No. 1 is clear and thick, like honey. Some who have tasted it said they could not have told the difference if they had not known. It is grained all through. The cane was raised in bottom, sandy soil—clay and sand mixed, color dark—without manuring.

Planted about the 1st of May, three feet one way, two the other; kind of seed, Imphee. I do not know what kind the first planting was as it did not come up in time. I then planted over again, but planted between the other hills. After several days both plantings came up, from six to twelve stalks in the hills. I let them all grow. Hoed three times, but did not plow. Cut and stripped the next day after the frost that killed the leaves; bound in bundles and corded up, one tier across the other, under a shed out of the sun. Left it in that condition for three or four weeks before working up. Yield from seven rods of ground 8 gallons of the above kind of syrup.

I have several other samples that I would like to compare with those of other manufacturers. The next sample is Sorghum, grown on the northeast side of a sand hill—very sandy, but well manured with barn-yard manure; planted four feet apart, each way, and many hills missing at that. Plowed and hoed the same as corn; cut soon after the first frost that killed it; bound, and corded up on the north side of a building, two weeks before being worked up. It had just headed before the frost, but very few had begun to turn brown. Rejected all the suckers and topped below the unripe joints. Yield, 112 gallons per acre of syrup that will compare with any golden syrup, in color or flavor, from Dixie. No chemicals used in defecating.

I will here give my experience and opinion about cane seed. Cane seed should be of the best quality—the early Imphee, for this climate, as it matures earlier than the Sorghum. The Sorghum will yield the most syrup, when it does well, but is not so sure a crop. The seed of either variety should be brought from as far south as middle or southern Illinois, or Missouri, or Ohio. My experience is that the seed grown here deteriorates—that is, has less juice and less sweet in it, being a native of a more southern climate—like the dent corn, being brought to a cooler climate where the seasons are shorter, it is forced into maturity quicker, and, like the corn, to produce its seed, requires all the energy of the stalk. In trying to adapt itself to our northern climate it would be natural, then, that it would grow smaller and less sweet. I have known, where the seed has been raised and planted here three or four years,—depending something upon the seasons—that a part of it would be pithy, like a corn stalk, and still look like a perfect cane with the ripest seed; but that seed, planted again, produces what some call coffee corn, worthless for anything, except for the seed and fodder.

Cane seed should be soaked four or five days before planting, or until the sprout starts, in rain or slough water. No seed should be soaked in well water, for it has no ammonia in it, and the seed is liable to sour before it will sprout. This is the reason why so many fail in soaking seed in hard water, as it has nothing in it to nourish the germ, but is inclined to soak the life out of it and leave the seed to sour. Last spring I soaked my seed four days in slough water, kept it in a warm

room, then planted, and in five days from planting it was up sufficient to trace the rows across the patch, one and a half acres; and in ten days large enough to work in.

If this scribble is worth your notice, I will give you my experience in Culture, Care and Manufacture of the cane. W. EMERICK.

DOUGLAS, Marquette Co., Wis.

Blend the Useful and Ornamental together.

"It takes all kinds of people to make the world," is an old saying; and no where do we have a more striking realization of the fact, than when we see the different methods which people pursue in doing the same kind of business. Some persons do not seem to have any eye or taste for beauty at all. They go plodding through the world without ever seeming to make an effort to fix their property so that it will be more pleasing to the beholder. Their common expression is, "Well, if you don't like the looks, why just look the other way—that's all," when it often happens that one single thing not being done right mars the beauty of all the rest.

Often do we see a striking contrast of how different things can be done, by two farms standing side by side. On one of them the owner seems to want to arrange things so as to be beautiful to look upon, as well as useful. Everything, as far as possible, is arranged with artistic effect. The various lots are measured off regularly, the fences are put up straight, and the out-buildings are put up as conveniently and nicely as possible. The house itself is built in the most pleasant and commodious style, and seems to have been built for something else than merely as a place to stay in.

Let us turn our attention to the yard in front of the house. What nice shade trees greet our vision! What splendid walks and flowers! And while the owner's potato patch and other crops seem to be well tended, yet he does not seem to devote his whole time to digging and delving to get something to eat and sell, but thinks it is his duty to his God, his family, and his country, to do something that can be seen and its beauty remarked upon in future years.

On the other farm the owner does not seem to have the least particle of taste for beauty or ornament about him. His fences are thrown together where it is the most handy for the time being, and the whole farm presents an aspect to an intelligent person displeasing to the eye. There are no pleasant shade trees there, no pleasant arbors where a person may sit and view the beauties of surrounding nature, no inviting walks with sweet and beautiful flowers growing up on each side of them, but in the place of these things, the hens, chickens, pigs, geese and ducks roam at will. The owner has no spirit of progressiveness in him. His work, what he does, is all done without regard to looks; and when he dies, he dies without the name of having done the first thing to advance the interests of civilization, or beautifying the land which it happened to be his lot to till.

We would not advocate that any should go beyond their means to adorn their property, but we do advocate that, as far as they can, they shall arrange things so as to be pleasant to look upon, and gratifying to the taste. We argue that each one should take an honorable pride in trying to do something which shall be worthy of memory, and that will be useful and ornamental. J. B. PERKINS.

WHITEWATER, Wis.

Arsenic for Rats and Gophers.

ED. FARMER:—The rats, in imitation of rebel and Indian raids, poured into houses and granaries in this neighborhood last fall in alarming earnest. I fed them strychnine until I was discouraged about killing them; I then bought and fed them arsenic in moistened bread, and the second meal offered them was left untouched, and the house has remained free from them ever since.

I intend to try arsenic as a substitute for strychnine to kill striped gophers. If it answers as well, I can soon save enough in the difference of cost to pay for the FARMER one year. W. P. UNDERWOOD.

RICHLAND, Minn.

Sugar Cane Seed.

MR. EDITOR:—The State Sorghum Convention is past, and the discussions of that body ended; still it is not proper, nor to be expected, that this subject should rest as dead, until resurrected by another assembling of that body, but rather kept alive from discussion by such as are interested and experienced in cane growing.

It is true that the Convention held at Madison was one of great interest, and no doubt will result in great good to the community at large; still it is not reasonable to expect that the resolutions, then and there passed, are perfect in themselves, and to be the guide of the experienced as well as the uninitiated, if contrary to experience and common sense.

The Convention was composed only of men like unto other men, liable, of course, to err in their deliberations, and, did they pass a resolution that no cane seed but the sorghum should be planted, or no mill but the horizontal roller mill should be used, and that cane seed should not be soaked before planting—why, this is only the opinion of a majority of a few men, who would not be, of course, selfishly biassed in favor of the resolutions, unless they had mills or sorghum seed to sell.

The subject is sugar cane seed; and I have a few words to write in relation to it. And, although it is not the first thing in order to be considered in the programme of growing cane, as a rule, still there is no one thing of more importance, and it is time to begin to think and act, and procure *good* seed for spring planting.

It is agreed by many that there is but one kind of Sorghum seed, but many kinds of Imphee. Still there is a difference in Sorghum as to being early, some being nearly two weeks earlier than others, owing, it is claimed, to a continued selection of the earliest tufts from the cane field. This may be true in that latitude where the Sorghum ripens, but in this section, as far as my experience carries me, I have come to the conclusion that as yet the Sorghum seed has not sufficiently matured here to make it a safe thing to plant. I have seen seed grown here that had the appearance of good seed, and planted it, and have known others to plant it, but it proved partially or wholly a failure, and, in all probability, owing to the fact that the seed was not fully matured; while seed grown in Ohio came up and grew thriftily from the beginning. I am in favor of continuing to make the effort to raise our own seed, by selecting the earliest heads yearly, but not to trust too much to our own seed for extensive planting, until we know that we are safe in so doing.

I prefer the Sorghum to the Imphee when it ripens. But such seasons as we have had last year I consider that the Imphee seed is the seed to plant—that is, what is termed the small or Black Imphee. But as the future is unknown to us, and it is possible that the season may be long enough to ripen Sorghum, if I were to advise any one in the matter of procuring seed, I would advise to get about one-half of each kind, and thereby have the opportunity of testing the matter experimentally. The African cane, or Imphee, is from two to three weeks earlier than the Sorghum, and yields well—better than the Sorghum last year in this vicinity, for the reason that the Sorghum did not ripen. It is a harder cane to crush, there being more woody fibre or outside rind, but the juice is very sweet.

Persons intending to plant cane the following season cannot be too careful in procuring good seed, and of the right kind.

O. P. DOW.

PALMYRA, Feb. 8, 1864.

Salting Straw.

MR. EDITOR:—I noticed in one of the FARMERS that some one recommends salting straw for stock. I make it a rule to salt my grain when I stack it, putting in from a pint to a quart of salt on each load. The grain will keep better, when damp. Cattle will eat the straw about as well as hay. They will winter well on straw, if it is salted in that manner, and I think it is the best way.

I. W. BRUNSON.

PATCH GROVE, Feb., 1864.

What are we to do for Fuel?

MR. EDITOR:—This, to my mind, is a very important question, second to none in interest to a large portion of the people of Wisconsin. The extreme cold weather, the heavy body of snow, and the consequently almost impassible condition of the roads have tended to advance the price of fuel from fifty to one hundred per cent. throughout a large extent of our State, and increased greatly the expenses of housekeeping to a large class of our citizens. That these prices will somewhat recede, on the opening of spring, and for a short time to come, I have no doubt; but we shall never again buy fuel so cheaply as we have done. The wood-seller has learned a lesson that he will not forget. Our extremity is his opportunity. And in most of those localities where we have heretofore purchased wood at $2.50 per cord, we shall soon pay, even with good roads, $5 per cord.

In a large section of the State, the original forests, now few and far between, are fast disappearing before the woodman's ax, and will soon disappear entirely. It is not surer that the Dutch have taken Holland than it is that they have taken hold of a large portion of the timbered lands that lie along the borders of our little streams, that have not heretofore been considered very inviting locations for agricultural purposes, and in their persevering hands will soon be denuded of their timber, and the forest will give place to the reaper and the plow. A large class of farmers who have thus far fed their fires from the scattering timber that grew upon their openings, can do so no longer.

Coal cannot be furnished as a fuel, but at an enormous expense to the consumer. Mr. Editor, we shall have to *grow timber* to feed our fires. And the inquiry is pertinent, what are the most valuable kinds to grow, and what the most practicable manner of doing it? And, in the mean time, let us be saving of the wood, and also ascertain what relief our railroad corporations could furnish our people by the transportation of wood on their roads, from those localities where wood is plenty, providing they are willing to work for a just compensation. will you please give us light on this subject. J. C. B.

DANVILLE, Feb. 12, 1864.

[In next No.—ED.]

First Experiences.

MR. EDITOR:—I wrote you a year ago that I had spent nearly all my life behind the dry goods counter I did not tell you all. Now I will say I did not relinquish mercantile pursuits and adopt farming life as a matter of choice. In my case, it was a change from a business that I delighted in, to one I did not fancy, and of which I felt myself ignorant. I dreaded the experiment.

But my health had failed. I was a confirmed dyspeptic. All remedies had failed to cure. My friends thought me past recovery. I was discouraged, and therefore the adoption of the farm life.

And now, after one year's experience on a farm, I find myself renewed to life. My recovery has been so rapid that I am a marvel to myself.

Strength has returned to my nerveless arms, and muscle has developed on my emaciated frame, and a degree of courage and hope has driven away the clouds of despondency. I now feel possessed of more manhood, in its full sense, that at any time in many years gone by. Now I am a farmer from *choice*. No reasonable compensation would induce me to again confine myself between two brick walls, shut out from the pure, life-giving atmosphere of heaven, and God's own sunlight —from inspiring and healthful intercourse with Nature, in which she, with unrivalled charms, is constantly inviting man back to his normal state.

So much in regard to the hygienic influences and experiences of my first year of farm life. And I wish I could open the prison doors to many more such forlorn specimens of voluntary captives as I was, and, taking the "scales from off their eyes," direct them on the high road to health, which said road does not direct its course through "Broadway," or "Lake

Street," but through the fertile prairies and quiet groves, amid sheep pasturing, and singing birds, and rippling streams. And there are no stage coaches or railway trains on said highway, but often weary foot-traveling, and oft times heavy loads to carry. But O, how sweet and refreshing are rest and sleep to the the weary, and food to the hungry!

But, pardon me for betraying myself into this extended strain on chords that have been tuned by abler hands than mine. I would say something about my successes and failures in this first year's experiment, my ideas of the "pathology" and "remedies" of practical farming, as I find it and view it, but I should intrude on your patience.

Accept my best wishes for the success of the FARMER. CHAS. H. TOPPING.

DELAVAN, Jan. 13, 1864.

Making Roads in deep Snow.

[The following comes rather late for this season, but, if not forgotten, will serve the Wisconsin public another winter.—ED.]

MR. EDITOR:—As the snowy season is not entirely passed, I will tell you how I make roads where snow is so deep as to be troublesome. It may not be new to you, but I find it is to some. I chain a bundle of hay or straw, as large as a man's body, under and crosswise of each sleigh runner, by hooking around the bundle on each side and close to the runner, passing the chain over the runner and forward of the forward knee or bearer, to keep it from sliding too far back. If properly adjusted, the bundles will keep their places.

One sweeping will press the dryest snow down so that, with one night's hard freezing, there will be a nice road ready for drawing heavy loads on, and a nice wide path for each horse to walk in—provided always that the wind keeps still so long; but should it blow, there will be far less danger of such a smooth and wide track being filled up, than one with abrupt edges.

Now that the road is ready for use, who will tell us of a cheap, convenient and effectual brake for sleighs, to relieve the team of the hard labor and danger in having to hold back heavy loads while going down steep or long hills? Teams are often sadly abused for the want of a suitable brake to relieve them of the load that they must either hold, at all hazard to harness and limbs, or run to avoid, which may be equally dangerous. Standing on the common iron hook or dog, attached to the rear end of one runner, is better than nothing; but this is inconvenient and often dangerous to the driver and team, as his feet are liable to be knocked off by stump, stone or rut, and, if his feet escape injury, he may lose control of his team in the tumble.

I have made a little improvement on this way of using the dog, by having a short post or standard attached to the rear end of the dog, and to a horizontal lever at the top of my load, so that I can use the dog without the trouble of getting off, and with the additional advantage of being up where I can select the best part of the road, and have the use of both hands to guide the team. Who will improve upon this plan? W. P. UNDERWOOD.

RICHLAND, Minn., Feb. 8, 1864.

Turnips.

MR. EDITOR:—Perhaps if I should give my experience in growing roots, especially turnips, some of my brother farmers might be induced to try them also. A year ago last spring I planted one-half of an acre, from which I harvested three hundred and thirty bushels, which I found to be good and cheap feed for making beef.

Last spring I planted two acres, and, although not yielding as well as the year before, I have sold one hundred and seventeen dollars worth, and have about one-half of them left, which will fat a yoke of oxen that I am now feeding. The trouble and expense of harvesting are but little more than potatoes. They are of the White Russian variety, and will keep until June without becoming spongy, and for table use are the very best.

SAM'L MILLER.

SHOPIERE, Wis.

How to make Cattle eat Straw.

Mr. Editor:—I will admit that it is rather late in the season to talk about feeding straw, but when we notice hay selling at from $20 to $25 a ton it tells us plainly that hay is going to be scarce before our stock is wintered. So I take this method of informing the many farmers who have stock to feed that if they try the way suggested below, I venture to say, it will give better satisfaction than any other.

In the first place, we never thresh our grain until the corn fodder is all fed. The fresher straw is fed after threshing, the better cattle will eat it. When threshing, all the straw that can be is crowded back into the barn before it gets wet; besides a good share need not go out at all, as it can be thrown on the mow from the separator. I separate all the chaff from the straw that we possibly can, as chaff is considered as good as hay. As soon as the separator leaves the barn floor you have room for the chaff, which we feed the first thing after stalks.

Now comes the feeding of straw, by mixing it thoroughly with hay, say about one half of each. It may be thought a great deal of work, but after trying it you will find it easy enough, especially when you see how nicely your cattle will devour it.

The way I do it is this: I throw down upon the barn floor, at night feeding, as much hay as will feed the stock night and morning. I then spread the hay first on the floor, shaking it well, so that it will readily mix when you come to apply the straw. Now spread the straw as evenly as possible over the hay; then commence at one end with a fork and shake the whole until it is thoroughly mixed. The best way is to go over it twice. When it is thus prepared, feed it out. The balance is all ready to feed in the morning.

Another benefit is derived from shaking the hay—the dust is all removed, which is known to be injurious to all domestic animals. The grass seed that can be collected, by sweeping the floor once a week and running through the fanning mill, is quite an item. We always have grass seed enough for our own use and to sell, by managing in the above manner.

The straw that is refused (there always will be some if the cattle are fed as they should be) in the manger can be used for bedding, as it will be all the better for its being quite short.

My father, an old Swiss farmer, says this is the method practiced in his country, and, you know, they boast of having sleek cattle in Switzerland. Louis Perrot.

Sowing Oats with Wheat.

Ed. Farmer:—I noticed in the Farmer an inquiry in reference to raising wheat with oats. I can say that I have sown oats and wheat together for the last six years, and think I am benefitted for doing so. On good land two and a half bushels of oats and one-half bushel of wheat is seed enough per acre to raise for feed only. I have always noticed, as your inquirer says, that the wheat is of superior quality. How it would be, grown half and half, I am unable to say, but am of the opinion that the effect would be the same.

I noticed last year that the fly did not trouble the wheat, but paid their respects to the oats. The benefits of sowing a small proportion of wheat with oats are: I get nearly as many oats per acre as without the wheat; it makes heavier feed. There is no better feed for mares with foal. It grinds much better for feed. I never feed whole oats when putting in spring wheat. R.

Metomen, Feb., 1864.

The Gentleman Farmer.

"Gentlemen" must not have to farm for profit. The duty of making experiments and establishing models in order to show others not only what to do, but what not to do, is what may be fairly expected of the wealthy territorial magnate. To turn farmer and to spend money patriotically for the good of the farming interest, is the only serious aim of a gentleman's agriculture. It may be followed as an agreeable occupation, and purchase pleasure far more cheaply and healthily than many of the other pursuits whereby the rich and idle seek to kill their time. Now and then, too, it may pay; but these latter examples are the rare exceptions to the rule. And

when a gentleman does make his farming pay, it will be found that he devotes to it an amount of personal care and labor which is by no means contemplated by the vast majority of those who take to farming otherwise than as their sole means of winning a livelihood. There is an old proverb, which says that "the best manure is the master's foot."—*Saturday (Eng.) Review.*

Dwarf Broom Corn.

MR. EDITOR:—At this late day I will comply with your request to report in relation to the Dwarf Broom Corn seed you so kindly sent me.

I planted it about the 15th of May, on opening land, which was rather wet and partially shaded, which was detrimental to the crop. I put on about fifteen loads of barn yard manure to the acre. The land had been cropped for six years previous, without manure of any kind. I planted the seed in hills three feet apart each way, and left five or six stalks to the hill. There were about 120 hills, and the yield was 26½ lbs. of fine ripe seed and 15 lbs of the best brush I ever saw, all perfectly dry when weighed. The seed was taken off only two or three days ago. I think it was a little mixed, for some of the stalks grew ten feet high, while the shortest were not over three feet, but all good brush. I intend to plant a few acres of it this year, but shall plant none of the old sort. I would sooner pay three dollars a bushel for the Dwarf seed to plant, than to take the common variety as a gift.

GILBERT WELLS.

STOUGHTON, Feb. 18, 1864.

Clover Pays.

MR. EDITOR:—I would like to say a word in favor of clover. In the summer of 1862 I had a piece of clover. I mowed in June, did not get much hay. I sowed one barrel of Michigan plaster on three acres, and a better growth I never saw. When the seed began to get ripe I put four horses before a plow and turned it under. The next spring I sowed it to club wheat with a drill. I harvested and threshed 30 bushels per acre of nice plump wheat, threshers' measure. I think it would weigh over 32 bushels. It was the largest yield that I have heard of in this town for that year.

I had wheat on as good ground that only yielded ten bushels. I think we can raise as much wheat on two-thirds of the ground as we now do, by clovering. Then we could keep more sheep and other stock. "But," says one, "the clover kills out so." I will admit that it kills out once in five or six years. Mine killed last spring, but it did not discourage me. I sowed the more.

I forgot to say that when I cut my big wheat the clover was half way up to my knees—the seed was so ripe when I plowed the clover under—and as thick as it could be.

A. N. W.

BYRON.

From "My Farm of Edgewood."

Peculiarities of Soils.

Any judicious farm-system must be governed in a high degree by the character of the soil, and by the nearest available market. It is not easy to create a demand for what is not wanted, nor is it much easier so to transmute soils by culture or by dressings, as to produce profitably those crops to which soils do not naturally incline. I am fully aware that in saying this I shall start an angry buzz about my ears, of those progressive agriculturists who allege that skillful tillage will enable a man to produce any crop he chooses. I am perfectly aware that Tull, who was the great reformer of his day, ridiculed with unction what he regarded as those antiquated notions of Virgil, that soils had their antipathies and their likings, and that a farmer could not profitably impress ground to carry a crop against its inclination. But I strongly suspect that Tull, like a great many earnest reformers, in his advocacy of the supreme benefit of tillage, shot beyond the mark, and assumed for his doctrine a universality of application which practice will not warrant. I am perfectly confident that no light and friable soil will carry permanent pasture or meadow, with the same profit which belongs to the old grass bottoms of the Hartford meadows, of the blue grass region, and of Somersetshire. I am equally confident that no stiff and clayey soils will pay so well for the frequent workings which vegetable culture involves, as a light loam.

Travelers who are trustworthy tell us that the grape from which the famous Constantia wine is made, at the Cape of Good Hope, is grown from the identical stock which, on the

Rhine banks, makes an inferior and totally different wine; and my own observation has shown me that the grapes which on the Lafitte estate make that ruby vintage whose aroma alone is equal to a draught of ordinary Medoc —only across the highway and within gunshot, produce a wine for which the proprietor would be glad to receive a fourth of the Lafitte price.

Lands have their likings, then, though Mr. Tull be of the contrary opinion. Any crop may indeed be grown whenever we supply the requisite conditions of warmth, moisture, depth of soil, and appropriate dressing; but just in proportion that we find these conditions absent in any given soil, and are compelled to supply them artificially, we diminish the chances of profit.

STOCK REGISTER.

How to Dispose of the Dogs.

Ed. Farmer:—I am really glad you pitch into the "dogs" so spiritedly as you do in your January No. It is a far more serious subject to sheep owners than every one is willing to admit. And as I have suffered considerably, as well as many of my neighbors, I have tried to adopt some plan that would prevent my sheep being killed by dogs; and I think I have at last hit upon the remedy.

My plan is this: When a sheep is killed, take some choice bits of meat, load each piece with strychnine, (not too much), place them where the dogs will be likely to pick them up. Take care that nothing else gets them. In addition to that, keep a double barreled gun; and always keep one barrel loaded with large shot Whenever you discover a dog, night or day, that is prowling about without the care of his master, *shoot him*, and shoot to kill. Keep on doing so, and, my word for it, those that do not get killed, will soon learn to get their feed at home.

You gentlemen who keep dogs should understand that you have a right to keep just as many dogs as you please, provided you *keep* them. But just remember that we have got sheep hereabouts, the price of one single one of which would buy a good horse, and we don't wish to have your dogs "worry" them. Now, brother farmers, bang away, and see if it don't work well. S. G. W.st.

Westville, Jan. 10, 1864.

The Dog Law.

Mr. Editor:—Knowing the lively interest you have always manifested for the improvement of the interests of the farming community, and especially for the promotion and protection of the wool growing interests of our State, we will venture a few remarks in regard to that oft quoted and much needed "Dog Law."

It pleased the Legislature of our State to pass a very good law in regard to the "licensing and keeping of dogs"—the license money to be applied to the payment of losses sustained by the "killing, maiming and worrying of sheep by dogs,"—any *surplus* to be applied to the support of schools, if the same shall remain in the town treasury six months. To all of this we could heartily assent, knowing as we do that one sheep is of more account in advancing the agricultural wealth of a community than all the dogs in a township—the wealth of any community being measured by the number of pounds of wool grown, and the yards of cloth produced; more especially in these times when it has to be mainly relied upon to furnish employment for our numerous factories, and as the chief article of wearing apparel of the farming population.

Yet there are men who keep more dogs than sheep, and do almost anything to evade the provisions of the law, who take issue in the matter and strive to make trouble, by saying that it is not lawful to pay out money from the treasury unless upon positive proof of the killing of the sheep by dogs—a thing next to impossible in most cases, as the damage is usually done at the midnight hour, when no one sees them, or, seeing them, is unable to testify that it was a dog and not a wolf, although there may not be a wolf to be found by the most successful hunter in a day's travel. And then there is another class of men who keep a dog and no sheep, but several children, who begrudge the dollar of license money, and would favor any scheme for keeping the money where it would not pass out of their interest. They oppose the payment of

loss upon sheep, and favor putting the whole of the money into the town school fund. In proof of this we will copy a resolution from the records of the last town meeting in this town:

"*Resolved*, That the supervisors of this town be and they are hereby required not to issue orders for sheep killed, and that all moneys derived from the tax known as the dog license tax, be paid into the school fund."

The points which we are desirous of raising are these:—1. Does the law contemplate the positive proof of the killing of the sheep? 2. Is it right or just to take all the tax and put it into the school fund, overriding and rejecting the just rights of sheep owners? If so, it should be generally understood and well discussed, that each and every town in the State may pass the proper resolutions at the next town meeting. If it is wrong to appropriate the whole of the fund, as we believe it is, the sheep owners should look to their interests and have all such resolutions expunged from the records where they exist, and prevent their passage where they may be advocated. L. G. ARMSTRONG.

PENNIMORE, Feb. 18, 1864.

Stretches in Sheep.

ED. FARMER:—There has been quite a number of remedies published in the FARMER for the Stretches in sheep, most of which are very absurd. Last year I lost five sheep with that complaint. Some of them I opened, and found the intestine shut over the other part, and so *kinked* that there was no passage through. I lost three this winter—one a wether. I gave salt and water, say about three tablespoonfuls of salt to a half pint of water, and it seemed to help him; he went to eating moderately, lived three weeks, and then died. I opened him, and at least twelve quarts of water rushed out; the intestines badly inflamed, liver on the decay, the gall the size of a pint cup. And one ewe was taken with stretches very bad. After about ten hours I gave her salt and water; had no effect; then one spoonful of turpentine injection; then gave aloes, then chalk and vinegar, then a few doses tartar emetic with injections; then two doses of quicksilver—all to no effect. She lived near three weeks; stretched more or less all that time. We cut her throat, opened her in the presence of five spectators, found her all right, except one of the intestines for about five inches was stopped entirely tight. Split it open with a knife, and took something out that looked in shape like a gopher; both hind legs were perfect in shape, ham joint and foot, no tail; the body, or main part of it, was, at the hind end, about one inch in diameter; the largest, or head end, about two inches in diameter, no forelegs, head much like a gopher's, of dark color. Split open the forepart, found it filled with rotten, dark colored matter. The hind or smaller end was more firm, like gristle, of a purple color, all but the surface. It did not grow to the intestine, but stuck almost as tight as if it had been glued.

Now can any one tell what it was, or what caused it? I have not been without sheep since the day I was twenty-one; am now sixty. Brought up from a little boy a shepherd, I never heard the like before. Some say that stretches is caused by costiveness; yet that appears to be a mistake. My sheep are fed on early cut hay, with what grain they will bear, and are not costive.

Salt and water, if given as quick as the sheep is taken, is the best of anything I have tried yet. I have had some experience with sheep—have now some 400—but I have not, as yet, been able to ascertain the cause of the complaint, or a sure cure. It generally takes the best for its victims; the two ewes that I lost were worth some $15 each. I hope the wool growers will yet be able to find a preventive and a cure.

One correspondent says, mix together sulphur and salt, in the proportion of one lb. to eight lbs., and put where the sheep can eat it daily. I think that is very good to keep sheep in good health. I have three flocks fed on salted hay; they have not had one case of stretches this winter. SETH ROWLEY.

WAUTOMA, Feb. 26, 1864.

From the U. S. Report for 1862.

The Statistics of Sheep Husbandry.

The statistics of sheep and wool, like other results of the census, are defective necessarily, and doubtless more incorrect than they should be, by reason of carelessness in making returns. Still a proximate accuracy is aimed at.

In 1850 the census returned 21,728,220 sheep; in 1860, 22,163,105—increase in ten years, 439,885; an increase of two per cent. In addition to this number, there were returned by assistant marshals, not included in the regular returns, because not owned by farmers, 1,505,810, making the aggregate 23,668,-915.

As compared with the increase of sheep, there has been a proportionally larger increase of wool, indicating a greater weight of fleece. The clip of 1850 was 52,516,959 pounds; that of 1860, 60,511,343 pounds—an increase of 15.2 per cent. This improvement is only a continuation of former progress, which has by no means reached its highest limit.

In 1840, from 19,311,374 sheep were sheared 35,802,114 pounds of wool, equal to 1.84 pounds per head.

In 1850, while sheep had increased 12 per cent. in number, the wool crop had augmented 46 per cent., fleeces averaging about 2.42 pounds. The increase from 1850 to 1860 has been respectable, fleeces averaging 2.73 lbs.

Daniel Needham, of Hartford, Vermont, says there was not a buck in that State that could shear 12 pounds in 1840, while there are those now that yield 20 to 25 pounds, of which 60 per cent. is clean wool.

Ohio, which produces the largest amount of wool of any of the States, with 3,942,929 sheep in 1850, had a wool clip of 10,196,371 pounds, the fleeces averaging 2.58 pounds. In 1860, with 879,042 less sheep, the wool product was greater than in 1850, (10,648,161 pounds), averaging 2.47 pounds per fleece, or 34.4 per cent. increase in ten years.

In point of numbers, and, in some instances, in aggregate amount of wool, the older States exhibited a decline in sheep husbandry. This decline has been going on for many years in New England, and amounted to 45 per cent between 1840 and 1850, and 20.4 per cent. in the last ten years. From 2,218,287, in 1850, the decrease has been 496,352.

In the four middle States there has been a diminution of 1,060,109 from 5,463,589, in 1850, or 19.4 per cent.

In the ten southern (Atlantic and Gulf) States there was an increase of 852,709, or 9.1 per cent. from 3,830,124 in 1850. Texas alone gives an increase of 683,088, without which there would have been a loss almost as heavy as the actual improvement. In the fourteen remaining (western) States in which were 9,781,241 sheep in 1850, there has been an increase of 1,149,664, or 11.75 per cent.

Making a comparison between the twenty-four loyal and the eleven "seceded" States, the showing of the weight of fleeces is conspicuous, the difference being doubtless due in part to climate, in part to careless sheep husbandry. In the former, 16,263,718 sheep produced 50,183,626 pounds of wool, averaging 3 08 pounds per fleece. Virginia, with as favorable natural conditions for sheep husbandry as any other locality, averages 2.40 pounds. Tennessee averages 1.81; Texas 1.91 pounds.

The following table exhibits the relative increase or diminution in wool, and the percentage of each in the several States, showing an increase in twenty-one States, and a decrease in twelve, Kansas reporting none in 1850.

COMPARISON BY STATES—WOOL.

States.	Wool, lbs 1860	Increase lbs since 1850.	Diminution lbs since 1850.	Pr. cent gain	Pr. cent loss.
Alabama	681,404	24,296	.....	3.6	....
Arkansas,	410,285	227,690	.....	124	....
California	2,681,922	2,676,402	.....	.....	....
Connecticut	335,986	.....	161,468	.....	32.4
Delaware	50,201	.....	7,567	.....	13
Florida	58,594	35,347	.....	152	....
Georgia,	946,229	.....	43,790	.....	4.4
Illinois,	2,477,563	327,450	.....	15.2	....
Indiana,	2,466,265	.....	144,023	.....	5.5
Iowa	653,036	279,138	.....	74.6	.....
Kansas	22,593	.....	.....	.....	.....
Kentucky	2,325,124	27,691	.....	1.2	.....
Louisiana	296,187	188,290	.....	169	.....
Maine	1,495,063	131,029	.....	9.6	.....
Maryland	491,511	14,073	.....	2.9	.....
Massachusetts	377,267	.....	207,869	.....	35.5
Michigan	4,062,858	2,019,575	.....	98.8	....
Minnesota	22,740	22,655	.....	.....	....
Mississippi	637,729	78,110	.....	13.7	....
Missouri	2,069,778	442,614	.....	27.2	.....
N. Hampshire	1,160,212	51,736	.....	4.6	.....
New Jersey	340,250	.....	26,146	.....	6.9
New York	9,454,473	.....	616,828	.....	6.1
N. Carolina	883,473	.....	87,265	.....	8.9
Ohio	10,648,161	451,790	.....	4.4	....
Oregon	208,943	178,755	.....	602	....
Pennsylvania	4,752,523	270,953	.....	6	.....
Rhode Island	90,699	.....	38,993	.....	30
S. Carolina	427,102	.....	60,131	.....	12.3
Tennessee	1,400,508	36,130	.....	2.4	.....
Texas	1,497,748	1,365,831	.....	.....	.....
Vermont	2,975,544	.....	425,173	.....	12.5
Virginia	2,509,443	.....	351,322	.....	12.3
Wisconsin	1,011,915	757,952	.....	298	.....

Valuable Hints on Shoeing Horses.

I have my horse shoes made self-sharpening by this cheap and simple process:—first, put on a very large iron toe cork; split the cork lengthwise in the centre, half an inch deep; insert a piece of steel as thin as you wish to have the edge of the cork while using the shoe, the steel being thin and wide enough to form the point and edge when finished up; then weld, sharpen and temper. Prepare the

heel corks in the same way. The corks should all be made long, so as to be of service after they are worn off some.

My blacksmith uses the steel of worn out sickle sections; about all the preparatory labor required is to cut into strips of the desired width and length. New sections are too thick. If the job is skillfully done, (if not it will be worse than nothing), the iron wearing away faster than the steel will keep a sharp point or edge just the thickness of the steel. Blacksmiths who have to keep a man waiting from hours to a whole day for his turn to get his team into the shop, need not complain that this way will deprive them of business; while owners of horses, who have much teaming to do on frozen ground and icy roads, will soon find the saving of blacksmith's bills and many days time of teams and drivers going to and staying at the shop, will be at item worth saving, while the additional comfort, safety and efficiency of the horses will be above price.

The annoyance and danger from snowballs in horse shoes may be greatly lessened by having the inner edge of the shoe beveled outwardly, at an angle of about forty-five degrees. Shaped in this way the shoe does not hold the ball. W. P. UNDERWOOD.

HIGHLAND, MICH.

The Economical Feeding of Stock.

EDITOR FARMER:—I would like information, through your valuable journal, upon the following subjects, which I have not seen noticed in your paper:—How shall we feed most economically different qualities of fodder to our stock? I have timothy, clover, marsh hay, and straw; the timothy and clover, of course, they eat well, but when I throw in a fodder of straw or marsh hay, I find they will not touch it until they get very hungry; hence the dilemma. How shall I bring in my marsh hay and straw, and yet have my cattle come out in the spring in something more than a living condition? E. F. ELLIS.

DAYTON, JAN. 28, 1864.

[The above question has already been answered in part by some of our correspondents, but a further word may be added. You will succeed best by feeding the different kinds of fodder on alternate days, and by making the poorer sorts as palatable as possible by the aid of brine, sprinkled shorts, &c. Or you may treat your stock to the plainer and poorer diet first at each feeding, giving out the better kinds as dessert.—EDITOR.]

Stretches in Sheep—Remedy.

EDITOR FARMER:—I noticed in the Feb. No. of the FARMER an article inquiring for a remedy for the stretches in sheep. Your answer to the enquiry of "J. P." as to the cause, is correct to the letter. It is caused by a long continuance of dry feed, without anything of a vegetable nature to regulate the bowels. Who ever saw a case of stretches when sheep were at grass?

I have lost more or less sheep by this disease, annually, since I have kept sheep, which has been ten or twelve years. I have studied much upon this matter for a remedy, and have at length found one by experiment.

I had three cases of it this winter, and have cured them all promptly and with trifling trouble to myself or the sheep.

When I find a sheep stretching, I take a bottle with a small neck, put in three tablespoonfuls of castor oil, warmed so that it will run freely, take the sheep between my knees, insert the bottle into the side of the mouth, and the contents are soon down the neck, without any resistance on the part of the sheep. It has in no case physicked the sheep at all, but its soothing and healing and laxative properties aid nature in restoring the bowels to a healthy condition. T. HALL.

Calves—Warts and Bloating.

MR. EDITOR:—My calves have been troubled with a white warty excrescence about the eyes and also along the back, although they are in good condition otherwise; also several of them with bloating. Some of my neighbors have lost calves by bloating this winter. They think the cause is eating chaff. Will you, or some of your correspondents, give the cause of both complaints, and also the cure?

WM. H. MCLAID.

Some of the British Breeds of Sheep.

NO. II.—THE SOUTHDOWNS.

Next after the Leicesters, which breed we briefly discussed in a recent number, the South Downs are probably the most popular breed of sheep in Great Britain. They derive their name from the "South Downs," a range of chalky hills or downs some sixty miles in length and five miles in breadth, in rather the southern part of England, where the breed, now so much improved, originated.

These hills are clothed with an herbage, short and fine, but particularly well adapted to the keeping of sheep; while on either side there is a fine tract of arable lands, on which may be produced any required amount of food for the winter months. Consequently great numbers—the number is scarcely less than a million at this date—have occupied these downs from the earliest known times. Mr. Ellman, of Glynde, who was, perhaps, the first distinguished improver of this breed, describes the South Downs, at the date of his first efforts (1782), as being "of a small size, and far from possessing a good shape, long and thin in the neck, high on the shoulders, low behind, high on the loins, down on the rumps, the tail set on very low, almost perpendicular from the hip bones, sharp on the back, the ribs flat, not bowing, narrow in the fore quarters, good in the leg, although having a large bone."

They have always been rather noted for the good quality of their mutton, but it was not until after some years that the weight was brought up to a standard higher than about 12 to 18 lbs. per quarter; and they were rarely fattened before they had reached the age of four or five years. Now their mutton is reckoned the first in value, fetching, as we frequently observed, in the great market at London, one to two cents more per pound than that of any other breed; they are fitted for the butcher at from fifteen months to two years of age; and the weight has been increased to 16 to 23 lbs. per quarter. Indeed it is not very uncommon, on special occasions—as at the Christmas show—to make them weigh 40 to 50 lbs. per quarter.

The quality and weight of the fleece has also improved. Formerly it averaged but two lbs. per head; now it ranges from 3 to even 6 lbs.; the heavier fleeces being produced on the lower grazing lands. The staple is short, as compared with that leading breed of long-wooled sheep, the Leicester, and the fibre,

though considerably finer than that of the Leicester, has almost twice the diameter of the Silesian, Saxony, and superior Spanish Merino.

The characteristic mark of the South Downs which enables the novice to distinguish them in a moment from other breeds, is the hornless brown head. Indeed it is not uncommon for them to be entirely black, though this is not regarded as a desirable mark, and they have accordingly been bred with a view to rid them of that disposition to work back to what is thought, by some, to have been the original color.

According to Mr. Ellman, "the head should be neither too long nor too short, the lip thin, the neck of medium length, but thin next the head and tapering towards the shoulders. A *long, thin* neck denotes delicacy. The breast should be wide and deep, projecting forward before the fore-legs; this indicates a good constitution and a disposition to feed. The shoulders should not be too wide between the plate bones, but on a level with the chine; if the shoulder blades are wide on the top, the animal generally droops behind the shoulders. The chine should be low and straight from the shoulders to the tail; the ribs should project horizontally from the chine, for the animal will then lay its meat on the prime parts; the sides high and parallel; the rump long and broad; the tail set on high, and nearly on a level with the chine; the hips wide; the ribs circular and barrel-shaped; the legs neither very long nor very short; the bones moderately fine." These points are still approved by the best breeders.

It is only within a few years that the South Downs were first introduced into this country, yet they are in many parts already very popular—especially in the neighborhood of great cities—on account of the superior quality of the mutton. They have also hardiness to recommend them; on which account they are likely to grow in favor with such persons as will not give to the more tender breeds the care they require. They may be advantageously crossed with the Cotswolds and also with the Merinoes, to which last named sheep they give greater weight, an improved quality of mutton, and a capacity for being sooner developed.

The illustration on the preceding page, according to Hon. J. H. Klippart, Sec. of the Ohio State Board of Agriculture, presents a correct portrait of "Archbishop," a very perfect specimen of the breed, imported from England by Samuel Thorne, of Thorndale, New York, at the purchase cost of $1250. He was bred by that famous breeder of South Downs, Mr. Jonas Webb, of Babraham, and won the first prize at the Royal Exhibition in 1860. A beautiful sheep, surely.

That Stifle.

MR. EDITOR:—If the stifle referred to in the January No., was caused by heavy drawing or running, let the beast rest; give fomentations, and a light dose of medicine. If still lame, and no inflammation appears, use the following liniament:—linseed oil, 1 pint; chloric ether, 1 ounce; oil of cedar, one-half ounce. Mix and apply to the shoulder, night and morning.

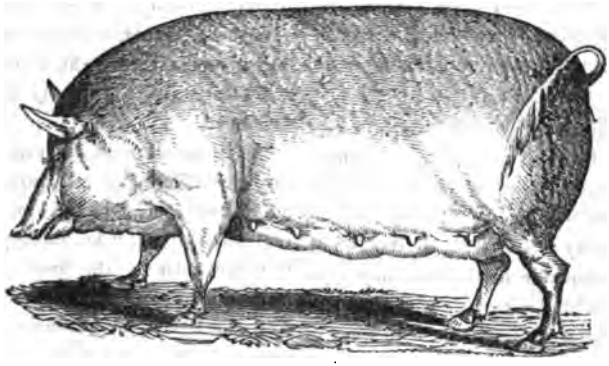
If it is caused by other means, it would take some time and space to give directions and treatment. JAMES H. GOULD.

Swine—Some of the best Breeds.

EDITOR WISCONSIN FARMER:—I have heard, of late, considerable talk about the Leicester breed of hogs. Have never seen a specimen, and would be glad of information as to the qualities which recommend them; also of your opinion as to the best breeds for this part of the country.
MITCHELL, Iowa. P. L. GREEN.

The Leicester pig, as we understand it, is an offshoot of the original Lincolnshire hog, and is not confined to Leicestershire, but found in several of the midland counties of England. It is a favorite in Leicestershire, however, and probably owes its name to that circumstance. The qualities which especially recommend it are a thick, compact, broad-chested, well made form, fineness of flesh, early maturity, lightness of offal, and largeness of frame. Color white.

So far as our observation is a criterion, it has given good satisfaction in this country.



THE LEICESTER SOW.

The above cut illustrates some of the points and general appearance. For breeding pure, it is our impression that it may be a more valuable hog than the Suffolk, which, though good what there is of it, is rather small. Possibly a cross of these two breeds would give us an animal superior to either.

In answer to your last inquiry, we are prompt to say that about the most profitable hog of which we have positive knowledge, is a cross between the Suffolk and the Berkshire. This gives us a good quality of flesh, early maturity, easy fattening, good form, large size, and an excellent breeder.

THE BEE-KEEPER.

Beehives Again.

ED. FARMER:—I am not in the habit of puffing for any beehive vendor, or parroting their language, but can speak what I do know and testify to what I have seen. The gentleman in the January No., in his broadside, says that all the movable comb guides are about alike, and the working of the bees in them the same. This, as his conclusion, convinces me that he, like every other passionate reasoner against modern improvements, is condemning a principle in science because he has failed in learning his lesson.

Now, to say that the old system of bee keeping cannot be improved would be proclaiming an anomaly to the world, and I would recommend to all such to take the back track for the days "when this old hat was new," and of wooden landsides. I have tried several kinds of movable combs. I don't expect to succeed the first time. Movable combs have only just been introduced. Apiarians themselves disagree, and nothing but a dispassionate, thorough investigation will decide.

I have used, this past season, what is known as the K. P. Kidder movable comb hive. I, however, used a little different guide. The Kidder hive is a double hive, having a dead air space all around, and as a moth proof hive it has no equal. I have nine of them in my cellar, with bees in them, the caps and honey boxes removed, and Mr. Shaw or any man can see what I call perfection. But one in the nine has any irregularities. Now this I call good, and still there is chance for improvement.

Now, if Mr. Shaw or any other bee keeper wishes to visit me and see for himself, he will be courteously received; or if my experience is worth anything, they are welcome to it.

If space is permitted in your next, I will describe the Kidder hive. And further, I would suggest that we call, at the eartiest possible hour, a Bee Keepers' Convention, to be held at Madison while the Legislature is in session. It would be a source of great benefit to bee keepers at large.

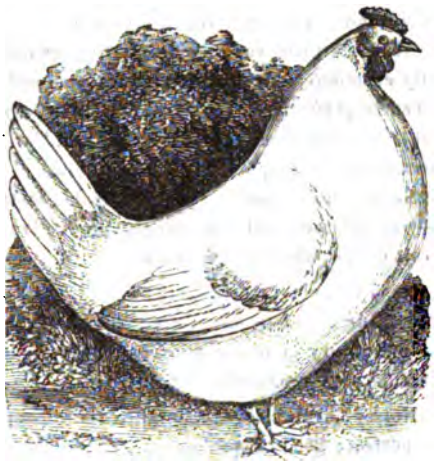
JAS. BULLARD.

EVANSVILLE, WIS.

REMARKS.—If we knew the Kidder hive to be the best, it might be thought advisable to advertise it gratis; but, inasmuch as we are without this positive knowledge, we propose

to make Mr. K., like all other patentees, advertise at his own expense. It is now too late to call the Convention for this session of the Legislature.—EDITOR.

THE POULTERER.



Chicken Hatching.

How naturally does the appetite of the civilized man seem to be set for eggs in the spring of the year! No other dish will supply the place of this, and the table that is without it, though loaded with everything else, is sadly deficient. Then why not give a little more attention to chicken-raising?

Now is the time when the hen usually takes it into her head to *set*, and we would simply urge that she be provided with reasonably good facilities—a clean, quiet nest, with straw, and such good, *fresh* eggs as she can conveniently cover, and will be likely to hatch.

In three weeks the chicks will make their appearance, and then a little pains should be taken to prevent their being tolled off into the wet grass. It is much better to provide a coop for the hen, and a plenty of crumbs and water for both her and her brood. The chicks will do better, and the garden will be the gainer.

Remember that early hatched chickens are the most profitable.

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

List of Hardy Pears.

WHITEWATER, Feb. 2, 1864.

A. G. HANFORD:—Knowing that you are informed in reference to the varieties of fruits best adapted to Wisconsin, I write, asking your advice as to the varieties and number of each of standard pears of a list of 100.

Yours truly, C. M. CLARK.

LIST OF HARDY PEARS FOR WISCONSIN, IN ORDER OF RIPENING.

1. Doyenne d'Ete.
2. Osband's Summer.
3. Beurre Giffard.
4. Tyson.
5. Buffum.
6. Seckel.
7. Flemish Beauty.
8. Stevens' Genessee.
9. Swan's Orange, (Onondaga.)
10. Urbaniste.
11. White Doyenne.
12. Sheldon.
13. Oswego Beurre.
14. Winter Nelis.
15. Glout Morceau.
16. Pound.

Brief Notes on the above which may serve to aid our correspondent and others in making a selection:

Nos. 1 and 2 are rather small, but handsome and good. No. 8 ripens with 2, is larger and very excellent, tree a straggling grower.

No. 4 is of good size, handsome and fine flavor, tree vigorous, rather slow in bearing as standard, grows well and bears well on quince. Nos. 5 and 7 are extremely hardy and should be planted most largely. No. 7 is large, showy and fine, has more generally succeeded in the Northwest than any other one variety. Both are very productive.

No. 6 is quite small, exceedingly rich, and indispensable in the smallest collection; tree slow, but handsome, erect grower, bears young and is very productive, much improved by high culture.

Nos. 8 and 9 are both large and handsome; trees good growers and productive. No. 8 is rather inclined to rot at the core. No. 9 is

somewhat inclined to blight in the branches, seldom extends over the entire tree; an early bearer.

No. 10 is a slender grower and late in coming into bearing; fruit fine.

No 11 is well known, in some localities is subject to cracking; where it is not should be planted largely; it uniformly did well with us at Waukesha, and generally does throughout the West; at Milwaukee it has lately cracked badly.

No. 12 is large, rich, excellent, and will become very popular when better known.

No. 13 is an early bearer and very productive, blossom buds more hardy than many varieties. Variable in quality, esteemed by us and others at Waukesha, inferior grown about Milwaukee; needs high culture.

Nos. 14 and 15 are fine early winter varieties. The first is everywhere a favorite, fine grained, buttery, melting, rich, an early bearer and productive; tree a slender, straggling grower, not popular with nurserymen and seldom gives satisfaction to purchasers not acquainted with its habit of growth. No. 15 is preferred on quince root.

No. 16 is a fine winter cooking pear, very large, firm, easily kept, tree vigorous and productive.

ADDITIONAL LIST.

Rather more tender, but generally succeeding in suitable locations.

1. Madeline.
2. Bloodgood.
3. Dearborn's Seedling.
4. Rostiezer.
5. Belle Lucrative.
6. Louis Bon of Jersey.
7. Duchess of Angouleme.
8. Beurre d'Anjou.
9. Vicar of Wakefield.

Brief Notes on the above.

No. 1 is a fine grower and productive, juicy and melting, of agreeable flavor, ripening with No. 1 of first list, but not equal to it in quality; rather inclined to blight in moist rich soils,

No. 2 is variable, often rich and fine, best on rich dry soils.

No. 3—An excellent little pear, handsome, erect grower, bears young.

No. 4 is scarcely equalled by any early pear, occupying the same relative position to the summer varieties as the Seckel does to those of autumn. Strong, irregular grower.

No. 5—A little variable in quality, generally excellent; does best on warm, rich soil, when in perfection is scarcely excelled by any other autumn pear. Perhaps this and No. 3 should have been placed in the first list.

No. 6—One of the most popular market sorts—tree vigorous and exceedingly productive; fruit is best when grown on quince.

No. 7 is the largest dessert pear. Like the preceding does best on quince; fruit buds liable to injury in severe winters, in favorable seasons very productive.

No. 8—Large, rich, excellent, fruit uniformly perfect; good bearer.

No. 9—Vigorous and productive. Like No. 7 blossom buds are liable to injury in severe winters, and like it preferred on quince; fruit always fine for cooking, and when well grown and properly ripened, a good dessert fruit.

We should be inclined to try the Howell, a fine autumn pear, very uniform and handsome, new and unproven in Wisconsin, as far as we know; and could not easily consent to omit the Bartlett, though one of the most tender, it bears so young, so large, handsome and excellent. A. G. HANFORD.

COLUMBUS, O.

How to plant Grapes.

Select a deep, rich, dry, calcareous loam, with perous subsoil, in a situation enjoying, if practicable, an eastward or southern exposure. A gravelly hillside, facing the southeast, is the best location. Trench to the depth of two or three feet; throw in well pulverized earth up to the level at which the roots of the vine are to be placed, and also about the roots in planting, a fine, rich, friable mold.

The hole should be large enough to receive

the roots without cramping. Place the roots in their natural position and carefully fill in the dirt about them with the hand, packing it down firmly and closely, leaving no space unfilled. Round up a little on the surface, so that when the earth settles it will still slope a little downward from the stem, and mulch with coarse litter.

If the soil is not sufficiently moist, or if the vine is not fresh from the earth, it will be well after the planting is nearly completed, to pour on a *little* water.

The after management will be given in subsequent numbers.

Fruits to supply a Family.

J. J. Thomas says:—"No two persons would agree on the number of fruit trees required to keep up a good supply of fruit for a family of medium size. With any ordinary number, some seasons would cause a deficiency, and others occasion a large surplus. Good or bad cultivation would also make a difference of four fold.

"The following may, however, be regarded as a full average, taking all circumstances into account, in connection with good management, and will frequently afford a large surplus:

"40 apple trees, with a full share of long keepers.
20 Pear trees.
12 Peach trees.
12 Cherry trees.
10 Plum trees.
6 Apricots.
4 Nectarines.
5 Quinces.
4 Grape vines.
30 Currant bushes.
15 Raspberry bushes.
5 Square rods of Strawberries."

For Wisconsin we would increase the number of apples and plums, reduce the peaches to 5 or 10, and largely increase the small fruits. In view of the method of preserving fruits fresh for winter use and for seasons of failure, should not feel at all concerned about disposing of any surplus. A. G. H.

Seeds.

BY J. C. PLUMB.

The seed, the life-giving germ of the vegetable kingdom, in its origin is, like the same principle in animal life, a wonderful phenomenon, veiled in a mystery we may not fathom; but the laws governing its development are, happily, open to our investigations, and the rules of germination are so well defined that they may well claim science.

The seed is a history, with its several chapters, verses, and periods.

A whole summer's work of formation, a real new creation is wrapped up in the tiny grain, which the sun and dews of summer may develop into a beautiful herb, "like the grain of mustard seed, when it is sown it becometh a tree so that the birds of the air come and lodge in the branches thereof." Or it may be the germ of the lofty pine, with its centuries of beauty and usefulness.

The philosophical importance of the seed is well expressed in the words of one writer as "the beginning and end of all vegetation."

The seed proper is a very small affair, that the prick of a pin might destroy forever, but when snugly wrapped in its glutinous pericarp, with its large per cent. of carbon, and often enclosed in an almost impervious shell, and all well dried, it may retain its vitality for years, or even centuries, as food for animal life, or to vegetate in other localities.

Vitality and Testing are matters of great interest to the planter. The age at which the various seeds lose their vitality, if properly kept, is often approximately shown, but cannot be relied upon as evidence of growing power. Still, much difference does exist in their native power to retain vitality, and this difference is in favor of those species containing the most gluten, and against those of an oily and leguminous nature, of which the wheat represents the former class, and the bean the latter.

Testing should always be resorted to in the case of doubtful seeds, and can easily be done by "forcing." The common hotbed is an ex-

cellent place for this operation, in careful hands, but a simple and safe way is to place the seeds a few moments,—more or less according to the nature of the seed—in warm water, enough to soften the shell, then in the middle of a bag of moist bran, hung in a warm room, kept at a uniform temperature. Sprouting or decay will soon take place, and seeds can thus be tested in a few hours which require days or weeks after outdoor planting to decide upon their value.

A fair test of this sort would often save the seedsman from the suspicion of dishonesty, or justly condemn him; besides the inevitable profit and satisfaction to the planter.

In two ways people fail in testing:—first, in soaking too long, and, secondly, in allowing them to dry during the process.

The seed contains a larger per cent. of carbon than any other part of the plant, which it must part with before vegetation can proceed, therefore rolling in lime has been recommended, and successfully practiced, to hasten the growth of old and doubtful seeds. But moisture and heat are the great agents in promoting growth.

The amount of soaking and degree of temperature which seeds bear depends so much upon the species that no specific rule can be given, but it is well known that the onion can be made to sprout by a single immersion in hot water. On the other hand the Robinia, or locust tribe, require immersion in boiling water, followed by hours of soaking, to grow them at all the first year of planting—equivalent to a whole year's moisture and heat and cold. The Gleditschia, or honey locust, will bear boiling water (212° Fahr.) for five minutes, and left to cool over night.

There is great difference in the temperature at which seeds will vegetate. The chickweed will grow at a temperature little above freezing, and is, consequently, one of the earliest of troublesome weeds in the garden and nursery, while purslane requires a higher temperature, and does not become troublesome until the midsummer days.

To this principle we are largely indebted for the succession of plants and flowers which clothe our fields from early spring to the frosts of autumn.

Early maturing, so much desired by gardeners, is intimately connected with the vitality of the seed. While it is necessary to have well ripened, plump seeds for long keeping and the most vigorous growth, yet for early forcing and quick maturity, the immature or partially shrunken or aged seed may be more valuable.

The principle involved is, that aged or immature seeds, wanting in vitality, though they require a greater heat and more even temperature to grow, will sooner expend their vitality, and, therefore, the sooner mature. Hence the remark of an old farmer that "two or three years old seed corn will ripen two weeks earlier than fresh, yearling seeds."

Upon this principle, in connection with the well known plan of selecting the earliest ripening fruits of the season, and from specimens grown on warm, quick soils, great advancement can be made in the direction of early ripening grains and vegetables, as well as fruits and flowers, and is well worth the most persevering experiments in detail.

Improvement and Degeneration.—Seeds always reproduce their species, but not always their variety. The almost endless succession of varieties continually being produced in fruits and flowers, form one of the most interesting themes for the student of Nature. The prolific source of new varieties is the well known process of fructification by the pollen from another variety, and so well understood is this theory and practice, that, under careful management, artificial production of new varieties occasionally results in a really valuable acquisition.

But the great instrument in producing new varieties lies in the insect world, with its ever busy wings flitting from flower to flower, and as the least valuable varieties produce the most vigorous bloom, as a rule, the addition of improved varieties is necessarily the work

of slow ages. The tendency in all seedlings of choice fruits is to return to their original wildness, as manifested in the austerity of fruit, and rough, thorny character of tree. Occasionally a new variety is produced by what is termed a "sport"—a departure from the ordinary style of the plant, for good or evil, but not traceable to any of the known laws of generation—often very valuable, but cannot be relied upon to produce its peculiarities by seed.

Notwithstanding the great interest attached to this subject of new varieties, I think the great field of inquiry and enterprise should be to *improve the varieties now in hand.*

As few can mine the original gold, and the larger share of real wealth is produced by using judiciously that on hand, in developing the general resources of the State, so the great aim of the farmer should be the highest development of the agricultural resources of his farm.

The best of care in the improvement of the soil, cultivation of the crop, and selection of seed will do wonders toward the improvement of the varieties of those plants which find a congenial home in our latitude.

The opposite of this course—that is, a system of gradual impoverishment of the soil, robbing it of those elements necessary to a high state of vegetation, starving the crop with shallow, poor cultivation, and the attendant weeds, the negligence in selecting good seed and taking the right and best time to plant—all these causes operate to produce the rapid degeneration of the best varieties possible to be produced.

Climatic influences are a great consideration, but are not entirely at fault in the common deterioration of varieties.

WASH FOR APPLE TREES.—I have tried the washing of apple trees with a wash made of sal soda, as recommended in the WISCONSIN FARMER, and it has given me entire satisfaction.

WM. POWELL.

RIDGEWAY, WIS.

Trees with a Plenty of Roots.

If you want fruit trees that will be likely to live and flourish, the first thing to be considered, after variety, is form of tree and character of roots. Low heads, and fibrous roots in profusion—let this be your demand when you go to the nursery.

The above cut will illustrate what we mean better than a whole page of description in words.

Unwavering Faith of an Experienced Orchardist.

ED. FARMER:—It may seem to you that I have not faith enough in the success of fruit growing in this State. So far as relates to our ability to grow the apple, it is unwavering, and never was more so than immediately after the hard winters, when I saw that certain varieties came through uninjured.

My orchard of apples for healthiness and thriftiness will compare favorably with the best in the East, and produced last season 110 barrels of fruit. I hope, before long, to be able to give you the result of the trial here of a few sorts that have proved the most valuable and profitable—orchard trees which I think have not that prominence among Wisconsin cultivators which their good qualities of tree and fruit entitle them to.

A. G. TUTTLE.

BARABOO, WIS.

[Thank you, friend Tuttle, that's just what we want. Your communication will appear in next No.—EDITOR.]

Seasonable Hints.

Full and complete plans for the farm, garden and orchard should be blocked out for the season, while the April showers and sunshine are fitting the earth for the new creation of vegetable life.

About the first work is the preparation of

THE HOTBED AND COLD FRAMES.

It might be superfluous to describe the construction of these now every-day affairs, which we so fully described in the April No. of last year, and suffice it to say, do not neglect these important preliminaries to a good garden, in some of the many ways of starting early plants of salads, tomatoes, peppers, cabbage, &c., &c., not forgetting some annuals for early blooming flowers. From the costly glass structure, down to the box in the window, all will pay, if prudently and faithfully managed.

For all out door frames some convenient covering should be at hand against the cool and frosty night air. Blankets, sacks, and mats are variously used, but, for extensive operations, "straw frames" of the size of the sash to be covered are easily constructed, by taking two inch wide strips, cut from inch boards; nail laths upon the edges of these strips, six inches to one foot apart; turn over and fill with straw or hay, evenly and snugly arranged; then nail on corresponding laths opposite; bind the laths together in the middle with cord or wire, and you have a cheap, yet durable and very efficient covering for either hot or cold frames, and we thank Mr. Sanders, of Chicago, for the idea.

Plan for the Garden.—Not six by ten feet beds, little squares, circles or sepentines, neither rowing vegetables at right angles, with fruit shrubs, trees, &c., but everything in parallels, with the view of performing three-fourths of the labor of cultivation with the horse-hoe, cultivator, hand wheel-hoe, or rake. Row standard trees 10 to 20 feet, dwarfs 6 to 10, shrubs 4 to 6, vegetables mostly 1 to 3 feet. One-fourth the labor usually bestowed upon a kitchen upon the usual plan, will under this system produce the same amount. Not so applicable to city gardens, of course, but in these high labor times, it would pay to make over most of farmer's gardens, and when once tried with the use of labor-saving tools, they would never go back to the old way. Plow the garden in narrow lands, and as wanted for fresh plantings, from early to late; drag or rake down smooth; use the hand marker, or garden line and long board to make the drills. Cover all seeds with fine, fresh earth.

If possible, subsoil the garden; it will pay ten times the cost. The strawberry plat, especially, should be so planted as to admit of thorough cultivation. Rows three or four feet apart, with one to two feet between the plants, as before mentioned, will admit of horse work during the early summer, when the plants do not cover the ground, and in this way they are as easily grown as peas. Plant in a moist time, from middle of this to middle of next month.

The first planting out should be roots for seed, also cabbage, onions, and salads for early use.

Cions and *Cuttings* for grafting and other propagation can still be made, if done before the buds start. All cuttings should be put in moist earth or sand, and planted early. Cuttings of all kinds should be planted mostly *under ground*. Those planting willow will do well to read directions in March No. of last year.

Grape Vines should not be pruned at this time; wait until the leaves are well out—and the same with the orchard. *Never prune when the tree bleeds.* Do not take the useless trouble of digging great holes to fill up with "all manner of dead things," for the grape vine; it thrives best upon very dry, gravelly hillsides, or the equivalent, a deeply trenched, well drained subsoil. If you cannot secure this, then raise a mound or ridge as the future home of the vine.

Grafting will be in order as soon as the severe freezing is past. Begin it early, with the stone fruits first. Grafting wax should not be so greasy as to kill the cion, as is often

he case. Examine carefully for the eggs of he caterpillar tribe that will soon swarm in myriads on your fruit trees. They may be ound in clusters and rings on the small wood; ut and burn. The last of this month is the ime to commence washing with some caustic ash several times, to destroy bark lice. It an be done, *if it is done.* Cut off all the top ou cannot afford to thoroughly wash with a ood strong lye or lime wash. Two parts lye trong enough to bear an egg, reduced by addition of one part water, is about right; but he addition of good lime to make the wash of a light color will render the operation more sure.

Commence planting fruit and ornamental trees of all kinds early. Ten foot evergreens, four inches in diameter at the ground, which we removed early last spring, did finely. If you receive trees badly dried or shrivelled, bury them *all under* in moist soil ten days or so, bring up and plant in a moist time and cut back severely.

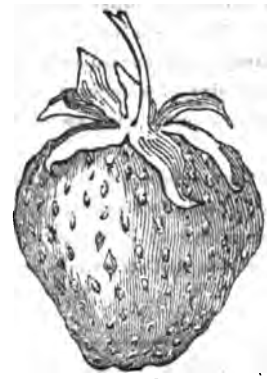
On the subject of tree-planting, we would repeat these "golden hints" which we furnished at this time last year. J. C. P.

American Wine Plant.

Under this name we learn that large quantities of Rhubarb or Pie Plant are sold in Wisconsin by traveling dealers. Extraordinary stories are told of great yields and quick returns. Under the belief that they are getting something new, large prices are paid, much beyond the charge of any regular nurseryman.

Rhubarb wine is no new thing; the late B. P. Cahoon made it for a number of years from his seedling. Mr. Lewis, his successor, and, we believe, other parties at Kenosha still manufacture it on a large scale. That made by Mr. Lewis is the best we have met with, and might easily be mistaken for grape wine. Good judges have been deceived by it.

The Linnæus Rhubarb is the best variety, all things considered, for both wine and table use. A. G. H.



Plant Strawberries!

It is just about as easy to produce this luscious, wholesome fruit as to grow carrots and potatoes; and, in the vicinity of any market, or, if on the railroad, a hundred miles from market, they may be made to yield five times the actual profit. Best variety for the million, Wilson's Albany.

Deeply spade, and thoroughly pulverize the soil. If rich, it will need no manure, but may still be improved by the addition of a little lime, and—if not too clayey—ashes, well mixed. If manure should be needed, use well decomposed barnyard, and apply to surface. Plant in rows, thirty inches apart. When the plants have covered the ground, thin out. Straw or spent tanbark thinly spread over the surface previous to ripening—and the plants should not be allowed to bear much the first year—will keep the berries from the dirt and at the same time serve as a mulch.

Plums—The Lombard.

Mr. Robt. Willan writes us that "the fruit crop in Waukesha Co. was a good one the past season. Plums did especially well. I had about 20 bushels, and sold Bombards in Milwaukee as low as ten shillings per bushel. One of my neighbors sold plums to the amount of $75." The plum seems to be entirely at home in Wisconsin, and should be planted largely. No fruit will pay better.

The Lombard, though not so delicate and rich as some others, is a very good plum, and by reason of its thick skin often escapes the

curculio when other thinner skinned varieties are cut off. The tree is a fine vigorous grower, very hardy, and exceedingly productive, fruit medium size, of a delicate violet red color, flesh yellow, juicy, good, sweet flavor, ripe in August.

The Lombard originated at Whitesborough, N. Y., from a stone received from Amsterdam, was disseminated as Bleecker's Scarlet, by which name it is still sometimes known.

A. G. HANFORD.

COLUMBUS, O.

Grafting on the Wild Plum—Chickory &c.

MR. EDITOR:—Three years ago last spring I grafted some wild plum trees with cions from a tree that blossomed very full. The cions grew well, and one tree bore a number of quarts last year. I should think they were a blue gage, for they kept green until they were nearly ripe. But the tree that I took the cions from died soon after it blossomed.

We had a blue plum tree that was old enough to bear, but it did not. A friend told me, a year ago last spring, to pound the body of the tree in spots enough to break the bark, so that the gum would run out. I did it, and last year it bore finely. I do not know whether it was because of the pounding, or its being a fruitful season that it bore

I do not know as you will think it is proper work for a woman to graft trees, but I received a two fold benefit; one was improvement in health, the other, nice fruit. We have other kinds of grafted plums, but I did not graft all of them myself. One kind is a reddish brown, and large. I measured one that was five inches around. They are very sweet; I do not know the name.

A word now of chickory, so much used in coffee. Last spring I saw an advertisement in the N. Y. *Tribune* of chickory seed at Bliss' Seed Warehouse, Springfield, Mass., for fifteen cents an ounce. I wrote for some; it came in due time, and I sowed two beds. I should say they were about three and a half or four feet by twelve, and I had near two bushels of the roots when dug. The leaves look like those of the dandelion, only larger, and the roots are white and bitter, about as long as parsnips, and from half an inch to two inches thick. I cut the roots fine enough for the coffee mill; dry by the stove, brown and grind the same as coffee, only it does not require near as much heat. It makes coffee without putting any other coffee with it. We like it better than any thing else we have used for coffee, except the real berry, and think it more wholesome than that. One ounce of seed is enough for two or three families.

JULIA C. WILCOX.

LOWELL, Jan. 14, 1864.

NOTE.—Thank you. We have no notions of the sort that you name. Grafting, budding, and the care of the kitchen and flower gardens are all proper, pleasant and healthful occupations. We would be very glad if more ladies would thus employ a part of their time. —EDITOR.

Dwarf Apples.

In the spring of 1863 I thought of setting out a dwarf apple orchard, and wrote to Ellwanger & Barry, nurserymen at Rochester, N. Y., for information. In reply to the question whether it would be safe to plant, as dwarfs, Rhode Island Greenings and other leading varieties that are tender here, they say:

"We do not know from experience whether dwarf stock would increase the hardiness of the varieties you name, or not. We know that tender sorts can be grown as dwarfs in gardens, when they would not stand in open orchards.

"We could not advise planting dwarf apples, in your country, for profit, though we are sure an orchard would pay. They bear at once, and at eight feet apart, you may put over six hundred trees on an acre. In a small orchard of ours, out some five or six years, some trees produce a bushel, and some not over a peck. Ours are for specimens and not for profit."

The foreman of Mr. Gould's Nursery, at Beaver Dam, says he thinks dwarf apples a perfect success in Wisconsin.

L. L. FAIRCHILD.

POWERS' LITTLE GIANT POWER CANE MILL.

POWER'S LITTLE GIANT POWER CANE MILL.—The above cut represents an improved Independent Power Cane Mill, invented and manufactured by our former associate in the FARMER, D. J. Powers. Believing Sorghum one of the great and important institutions of the time, he is turning much of his attention and great mechanical ability to the perfecting of machinery for its manufacture. This plan of a mill, it will be seen, leaves every thing free and clear for rigging up feed tables and bagasse carriers, and for operating generally, with no sweep knocking the feeder's head at every turn. It is also geared so that the rollers go much faster than with a sweep, thus greatly expediting the work, with even considerably less help.

Those who have used the mill speak very highly of it, and consider it much ahead of a sweep. We presume that Independent Geared Mills, from their greater convenience, and speed of working will come rapidly into use. All hail to progress in all things.

We understand from Mr. Powers that this is the style of mill he offers as his special premium for the best 25 acres of Cane. See his offer in our advertising columns. It will be a nice premium for somebody.

EDUCATIONAL.

Agricultural Education.

MR. EDITOR:—You are pleased to give us in your publication a free invitation to communicate our thoughts on any of the varied topics presented to us in its pages; and believing that this is the way to a right end, the accomplishment of which is the more certain as we become more intimate with the ideas, observations and experiences of each other, we trouble you with our mite,—more especially as you are certainly making your periodical, as it were, a telegraphic wire, and manifesting yourself an honest, intelligent and considerate operator.

There are, we are aware, many conflicting opinions abroad respecting the character and needs of the agricultural population,—some asserting that farmers are the refuse of all other professions, because that little intelligence is necessary for the tilling of the soil; others assert that more than ordinary intelligence is requisite, inasmuch as the knowledge of chemistry and other sciences is necessary to complete success.

That both these statements are partially true, results attest. But how to supply the need this state of things reveals, is the great question at issue. Some believe that in Agricultural colleges, &c., with their professors of every necessary science, directly teaching and elevating the toiling sons of labor, we have the great desideratum; others think the case is hopeless, and that neither correctives nor stimulants can avail to restore the patient. But we are persuaded there is a possibility of arranging a plan sufficiently comprehensive and practicable to meet the needs of all—a plan which would embrace the establishment of an Agricultural Institution in every township, an organization for making observations of facts, experiments, practical discussions, scientific instruction, &c., &c., from an increasingly interested community, and from the professors of some necessitated central receiving and dispensing Bureau, University or College—thus supplying the local need arising from variety of soil, temperature, &c. We would not attempt to define the precise limits of such an institution, but would suggest whether some such plan does not reveal the only means whereby the agricultural community can be efficiently instructed and elevated, and agricultural colleges, journals, &c. become fully what they would, and what they ought to be. CINCINNATUS.

REMARKS.—"Cincinnatus," like his illustrious predecessor, is entirely sound on the main question. It would, undoubtedly, be a good thing if the principles of agricultural science could be taught by a competent teacher or teachers in every county and town. But we must first have the fountain head before we can hope for much from the streams. The great agro-educational need (to coin a word,) is one thorough central institution where young men who are to be farmers or teachers of agricultural science and art may first acquaint themselves with the established principles of that science and art. And such an institution, we are most happy to say, is about to be established in Wisconsin. Let the friends of Industry and of Education rally to its support.—EDITOR.

MISCELLANEOUS.

An Honest Man.

Some are honest, in the ordinary acceptation of the term, from expediency; others from principle. To the latter only applies the old maxim, "an honest man's the noblest work of God," and its true dignity is illustrated, not merely in those transactions which attract the public attention by their grandeur, but often in the very commonplace affairs of life.

It is related that two farmers having a dispute as to some land, an action at law was commenced to determine it. On the day fixed for the trial, one of them called upon his opponent to accompany him to court, that each might give his own statement of the case. Finding his neighbor at work in the field, he said to him:

"Is it possible that you have forgotten our case to-day?"

"No," said he, "I have not forgotten it, but I cannot spare the time to go. You will be there, and I know you to be an honest man

and will state the case fairly, and justice will be done."

And so it proved; for the farmer stated his neighbor's claim so clearly that the cause was decided against him, and he returned to inform his opponent that he had gained the property. Such a character is worth more than all the wealth of the Indies.

THE HOME.

An Invocation to Spring.

Come quickly, O, thou Spring!
Write love's fair alphabet upon the sod
In many colored flowers—to preach of God,
Our everlasting King.

Come from the rosy South,
In chariot of incense and of light,
Dissolve the lingering snows that glisten white
Beneath thy fragrant mouth.

Walk softly o'er the earth,
Thou blessed spirit of the Eden-time;
Thy breath is like an incense laden clime,
Clasping rich bowers of mirth.

Thy virgin herald's here—
The snowdrop bares her bosom to the gale,
While down her cheek, so delicately pale,
Trickles a crystal tear.

The lark new soars above,
As if he felt the freedom on his wings,
While from his heaven-tuned throat there rings
A charming peal of love.

The yet unbearded wheat
Now timidly puts forth its tender leaf,
To drink sweet dews, for Winter, ancient chief,
Crawls off with tottering feet.

Your sorrows now inter,
Ye dwellers of dark cities; Spring is nigh;
She bathes her garments in a sunset sky,
And treads the halls of Myrrh.

To God an anthem sing,
When forth ye hurry to the fields of bloom;
He lifts the flowers, and lifts us from the tomb
To everlasting Spring!

[CHAMBERS' JOURNAL.

Superseded.

Baby! (still I'll call thee "baby,")
Baby, set adrift so soon,
Pushed right out into the daylight
From the shade of Life's new moon.
Hither, in thy chubby plumpness,
Scarlet mouth and eight white teeth,
Lift thine own old cradle cover,
What dost see there underneath?

He is now enthroned the Monarch,
All the house must bow to him;
"Floy" must be our little lady,
Bravely crush each baby whim.
See the monarch in his cradle—
Shameful, yes! to turn the darling
From her rightful nest so soon;
Just like grafting battle marches
On to some old nursery tune!
Mamma's love must do it gently,
Sugar-coat the bitter pill—
Keep a place for little lady
In her heart's warm cradle still.

☞ The Springfield *Republican* tells of a father who, in the late frosty weather, was surprised to see his little daughter bring home from the Sunday school library a grave treatise on "backsliding." "My child," said he, "this is too old for you; you can't make anything of it." "I know it, papa," was the artless reply, "but I thought I could when I took it. I thought it would teach me how to slide backward."

Faith and Reverence.

Strong Son of God, Immortal Love
Whom we, that have not seen thy face,
By faith, and faith alone, embrace,—
Believing where we cannot prove!

Thou wilt not leave us in the dust.
Thou madest man, he knows not why;
He thinks he was not made to die.
And thou hast made him. Thou art just.

Our little systems have their day;
They have their day and cease to be.
They are but broken lights of thee;
And thou, O Lord! art more than they.

We have but faith. We cannot know,
For knowledge is of things we see;
And yet we trust it comes from thee—
A beam in darkness. Let it grow!

[TENNYSON.

Dressing with Taste.

It is strange that with all the time American women bestow upon dress, so few know how to prepare a simple toilet with taste. To be well dressed means, with most, to wear rich materials, made up in gorgeous style, and with all the usual accessories of lace and jewelry, to add to the magnificence of the general effect.

Never was there a greater mistake. To be well dressed is only to have attire suited to the time, place and circumstances, made in a becoming manner. This attire may be a shilling calico, or a rich silk, and yet, in either case, if it is adapted to the above conditions a woman may be said to be well dressed.

One of the secrets of dressing well is to dress appropriately—another, to be careful of the details, the minuties of the toilet. Thorough personal cleanliness, glossy, well brush-hair, neat shoes and stockings, are as essential to a good personal appearance as the material and fashion of the dress. Indeed a lady who is particular in these minor matters can hardly ever be said to be ill dressed, and this delicate refinement will not only excuse faults, but naturally show itself in the good taste which will guide her selection, no matter how small the cost may be.

Some persons have an extreme horror of being "caught," as they call it, in the morning dress. Why they should be so sensitive on that point it is difficult to say. If it is clean and adapted to the work in which they are engaged, there is no shame in wearing it; and, above all, it ought to be remembered that no attire is good enough for the family which is not good enough for mere acquaintances who may favor you with their society.

Comfort at Home.

A powerful attraction to home is the cultivation of a spirit of neatness and elegance throughout all its arrangements. The eye scarcely ever wearies of a beautiful prospect or a pleasing picture. The aspect of a home should resemble the latter; it should tell its own tale; its atmosphere should breathe of comfort, and its quiet, simple ornamentation delight the eye. There is a brightness about a well kept home, which neither wealth nor magnificence can impart, unaccompanied by taste. To keep best rooms, or best of anything, to be used only for visitors' accommodation, is not the wisest policy for a wife to adopt; on the contrary, company rooms contrast too greatly with with daily living rooms, and suggest unpleasant comparisons. Every article should appear as if intended for use, and every article in its right place, the very chairs and tables should be suggestive of comfort, not arranged with stiff precision, but in such a way that the attractive portions of a room shall be visible to their occupants.

☞ The Duke of Wellington, writing to a man in a dubious position of authority, said: "The less you claim, the more you will have." This is remarkably true of the affections; and there is scarcely anything that would make men happier than teaching them to watch against unreasonableness in their claims of regard and affection, and which at the same time would be more likely to insure their getting what may be their due.—*Friends in Council.*

HEALTH AND DISEASE.

To Prevent Pitting in Small Pox.

The application consists of a solution of India rubber in chloroform, which is painted over the face and neck when the eruption has become fully developed.

When the chloroform has evaporated, which it very readily does, there is left a thin, elastic film of India rubber over the face. This the patient feels to be rather comfortable than otherwise, inasmuch as the disagreeable itchiness, so generally complained of, is almost entirely removed, and, what is more important, "pitting," once so common, and even now far from rare, is thoroughly prevented wherever the solution has been applied. It may be as well to state that India rubber is far from being very soluble in chloroform; so that, in making the solution, the India rubber must be cut into small pieces, and chloroform added till it is dissolved.—*Ex.*

LAID OVER.—An interesting communication intended for this department, from "A Farmer's Wife," is crowded over to the next No.

DOMESTIC ECONOMY.

How to cure Beef.

MR. EDITOR:—I have a recipe for curing beef, which I am not quite satisfied with, for the reason that the brine has to be boiled so often in hot weather, but it is all right for winter and early spring, the beef keeping tender and sweet.

Let the beef lay in a weak pickle of salt and water three to six days, to remove the blood. Then take up the meat and repack as closely as possible, just powdering over with salt as you pack it. Then, for each barrel of beef, take 12 lbs. salt, 4 oz. salt petre and 2 quarts of molasses. Dissolve; simmer; skim, and put it on the beef.

When a scum rises in summer, take up the meat, boil and skim the brine, add more salt, and repack.

If you or any of your correspondents have a better recipe, I would be happy to get it, through the FARMER. G.

STOUGHTON, May, 1864.

APPLICATION FOR BURNS AND SCALDS.—Steep tea as strong as possible, and apply the leaves and liquid to the part as warm as can be borne. Keep the whole quite moist by pouring on tea as warm as the patient can bear it.

O. STETSON.

ABOUT BREAD.—Good flour, good yeast, a good oven, and some experience and native skill are essential to the production of good bread. Great skill may succeed in making a tolerable bread from poor materials; and one without skill may sometimes with good materials find that she has made a good loaf; but if she cannot make the next one like it she has much to learn. What we strongly desire is, to see the work done in an intelligent manner, according to sure principles of science, so that no failure is to be counted among the probabilities. This can be brought about only by the education of the bread-maker in a knowledge of the process of mixing, kneading, fermentation and baking of bread so that the how and why of every part shall be well understood. The practical part of this education can be best secured in that divine established seminary, the family kitchen, under the instruction of an intelligent [illegible]

YOUTH'S CORNER.

A Farewell.

My fairest child, I have no song to give you;
No lark could pipe to skies so dull and gray;
Yet, ere we part, one lesson I can leave you
For every day.

Be good, sweet maid, and let who will be clever;
Do noble things, not dream them all day long;
And so make life, death, and that vast forever
One grand, sweet song.

[CHARLES KINGSLEY.

The Chameleon.

An officer in Africa thus writes of the habits of this animal:—"As some of the habits of the chameleon may not be generally known, I will mention a few which came under my observation. One morning, I saw close to my tent a very large chameleon hanging on a bush. I immediately secured him, and provided a box for him. In the course of a few days he became very familiar, and having seen them before, I knew how to gain his affections, which, in the first place, was done by feeding him well, and, in the next place, by scratching his back with a feather I used to put him on the table at breakfast, and in the course of a very few minutes I have seen him devour at least fifty flies, catching them in the most dexterous manner with his long, slim tongue; nor does he ever move from his position, but so sure as an unfortunate fly comes in reach, so sure he is caught, and with the rapidity of thought. In the forenoon, I always gave him a large slice of bread, which he devoured.

"It is not true that this animal will change color according to what he is put on, but he will change color according as he is pleased or displeased. His general hue is a bright green, with gold spots over his body; he remains at this shade when he is highly pleased, by being in the sun, or being fed, or scratched, which he delights in. When angry—and he is easily made so—his hue changes to a dusky green, almost black, and the gold spots are not to be seen; but I never could perceive any other color on his body but green in a variety of shades. The spots enlarge very much when he is in good humor—so much, indeed, as to give a yellow tinge to the upper part of the animal, but in general they are merely little yellow spots here and there on the back and sides."

☞ Kind words, looks, and acts are the small currency of social life, each of inconsiderable value, but in the aggregate forming the wealth of society. They are the "excellent oil" which keeps the machinery from rusting, wearing or creaking. They are the dew that refreshes and nourishes the otherwise arid fields. They are the sunshine of an else murky, dreary world.

Enigmas, &c.

I am composed of three words. In one of these words, without transposition or passing over letters, you can spell three words in common use; in another you can spell two, and in the remaining word one. My whole is a firm well known in the State. G. E. C.

No. 2.—I am composed of three syllables. My first syllable is the most democratic institution of the country. My second is an exclamation which, for the number of letters it contains, is capable of expressing more than any other in the language. My third is that upon which the angler hangs all his hopes.

My whole is the name of a lady. E. D. M.

No. 3.—

The world is round, and like a ball
Keeps swinging in the air;
And I'm around, and nothing swings
Unless I, too, am there.

Conundrum.—Why is a little girl like a blush? MRS. TREDWAY.

ANSWERS.

To enigma in last No.—"Wisconsin Farmer;" sent in by W. A. Vroman, Stoner's Prairie; Isabel Durrie, Madison; B. F. Searles, Rutland; Ed. Boswell, Arena; H. R. Williams, Palmyra; M. E. Cady, Rochester; Ed. Bigelow, Lake Mills: M. M., Windsor; Jas. Greening, Mazomanie; Alice Crawford, Baraboo; Monroe Gilman, Plymouth; Edwin Pierce, E. D. M., Sun Prairie; Agnes Whillons, Tafton; Fred. Pratt, Chicago; D. J. Osborne and B. J. Garland, Van Buren, Iowa.

To Historical Enigma—"Congress." Sent in by Jas. Greening, Mazomanie; Ed. Bigelow, Lake Mills; Agnes Whillons, Tafton; M. E. Cady, Rochester; E. D. M., Sun Prairie; Alice Crawford, Baraboo; M. M., Windsor.

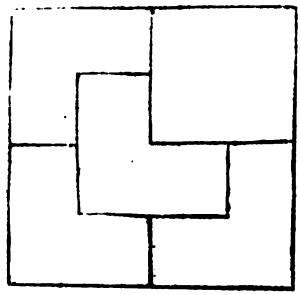
To Geographical Enigma—"A B C." Sent in by Agnes Whillons, Tafton; Henry Williams, Palmyra; Mertia E. Cady, Rochester; D. J. Osborne, B. J. Garland, Van Buren, Iowa.

To Scriptural Enigma—"Josephine." Sent in by E. D. M., Sun Prairie; Jas. Greening, Mazomanie; M. E. Cady, Rochester; Monroe Gilman, Plymouth; Agnes Whillons, Tafton; M. M., Windsor.

Many answers came too late.

To Conundrum—"Knee-high-miah (Nehemiah.)

To Puzzle—Take out one-quarter of the land for the father. Divide the remaining three-fourths each into fourths. This will give each of the four sons a corner lot, with a lot each side.



The number of diagrams sent in by our little friends induces us to give them a cut showing this division. The rule would apply just the same if the father's fourth were taken from the centre; but, girls and boys, you must study yet several winters before you are skilled in the law of superficies. MRS. HOYT.

EDITORIAL MISCELLANY.

Are We to have a State Fair?

The Executive Committee of the State Agricultural Society have, as before announced, prepared a Premium List and declared their purpose to hold an Exhibition, if the people of the State will show any disposition to second their efforts. Thus far there has been but little spirit manifested on the part of those from whom we expected most, and the time within which the location should be made is fast wearing away. The Fair cannot be held at Madison for lack of suitable grounds; but there are several places where it could be accommodated very well, and which would be very much profited by the stimulation it would give to the industry of their respective localities, and by the surplus of cash over cost of preparation that it would leave in their respective communities.

Friends of the industry of Wisconsin, awake! Let the war be an excuse for the neglect of duty no longer. It is just as important that our industry should advance as that the war should go on. Indeed the former is absolutely essential to the latter. The war cannot go on without *materiel* and money, and these can only come of a laborious, persistent and intelligent industry. Moreover, when the war ends, we shall have a large State and National debt, every dollar of which must be paid by labor. What then more important than that every means be used necessary to stimulate and inform that Labor, so that it be made as productive as possible?

Again we would say to the slowly-moving communities of the State, a little more promptness, if you please. There are always a few wide-awake, energetic men in every city and town. Will they not, by newspaper calls and public meetings, get this matter of the State Fair before the people at once, and so let the work of preparation begin without delay?

The State Agricultural College.

The bill for the incorporation of this institution, which passed the Senate by a more than two-thirds vote, is likely to fail in the Assembly. In the next No. of the FARMER we shall publish a full record of the proceedings in connection therewith, so that the people may see who are the friends, and who the blind, or false and reckless, opposers of this important measure.

Correction.

In reading the notice of the "Giant Power Cane Mill," illustrated on page 151, omit the second paragraph, and substitute the following: "We have never seen this Mill in operation, but some who have speak highly of it." This correction was made in the proof, but, by mistake, the form went to press without a change of the types.

Glimpses of Old England

And "Notables whom we saw in Europe," are crowded out to make room for Horticultural Department and several new advertisements.

The Gold Fever.

EDITOR FARMER:—Some of our farmers are being too strongly attracted by the gold of Idaho. We are told in Sacred Writ that the profit of the earth is for all. Even the king himself is served by the field. Consequently the benefits of agriculture stand first, and the mineral productions are a secondary thing. Undoubtedly it is necessary that some should go in quest of the precious metals; but it should be that class whose energies are worthless at home, being in nowise connected with agriculture.

Every intelligent agriculturist of America, whose eyes have been open to realities, well understands by what means Great Britain has attained her pre-eminence over all the world by her substantial specie currency. For some time it was the ambition of the British Government to foster and protect agriculture, until she should arrive at the point of being self-sustaining in respect of the two great staple commodities, wheat and wool. The result has been that paper currency is now largely superceded by coin. So, likewise, until we gain our independence of imported wool and other articles that we ought to produce, and keep the gold for our own use, we must submit to our hazardous paper currency.

It is not the drones that sustain the community. It is the faithful tillers of the soil, the watchful shepherds whose hardy endurance never fails. Our present position demands the service of every man and boy connected with mother Earth, who is not required to subdue the rebels. In no other way can we hope to gain our ascendancy as a nation. DANIEL ARCHER.

SPRINGFIELD, Wis.

[Sound doctrine. As a general rule, our farmers will find more gold by digging in their own soil at home than by a long and hazardous journey to Idaho.—EDITOR.]

Garnett's Chili Potatoes.

We have some of this variety for gratuitous distribution. Our friends will please call for them.

Read a little more Carefully.

ED. FARMER:—I feel a great interest in the Sorghum enterprise. I have been engaged in cultivating and manufacturing for the last seven years, and have made considerable improvement since the first, but find that I have a great deal to learn yet. And when I saw the notice in the January No. of the FARMER, that there would be a Sorghum Convention held at Madison, and that we would be notified of the time in the February No., I made up my mind at once to attend, and had everything in readiness, samples of syrup, sugar, &c., waiting for the promised notice. Well, last evening we received the February No. of the FARMER, and the first thing was to look for said notice; when, to my utter astonishment and disappointment, the Convention was already in session, and closed to-day. I cannot believe that it was done, intentionally, to keep people away, but I don't see how we can attend conventions unless we can get notice of them before they are past. I do not know who was to blame in the arrangement, but it was a monstrous oversight in somebody to hold a Sorghum Convention and not give notice through the FARMER, at least a month beforehand, (as the FARMER is the farmer's own book, and no intelligent farmer should be without it). But whether the editor was to blame or not, we will propose, as an atonement for the past, that he publish the entire proceedings of the Convention for the benefit of those who were cheated out of the privilege of participating therein. MILO BALDWIN.

DAVIS CORNERS, Feb. 4, 1864.

[If our friend will turn to page 44, *January* number, he will find the precise date named when the Sorghum Convention was to be held. We are not responsible for either the blindness or the carelessness of those who should read. We shall publish the valuable portions of the proceedings of the Convention.—ED.]

Chapman's Sectional Map of Wis.

Is a very fine thing. Besides being an accurate map of the State, it contains a list of all the Post Offices in the State, and their precise geographical location. Address S. Chapman, Milwaukee.

Come to Minnesota, Mr. Editor!

EDITOR WIS. FARMER:—You were all right in continuing the FARMER; I would not like to be without it. I think it will be introduced into many homes in Minnesota. And while I think of it, why don't you come over here and do us good, and let us help you? To be sure, this is not Switzerland, nor Belgium, nor any part of Europe, but it is a good country, full of Nature's best gifts, awaiting only the hand of industry to make it blossom as the rose. Here are no glaciers, nor battle fields, but here are noble prairies, wood, rivers, lakes, springs, fountains, rich in promise for the husbandman, upon which your eyes can feast, and by which your heart shall be gladdened; and then you can tell the story well to others.

I was afraid you would fall off those great heaps of ice or into the crevasses. And then the danger you were in at Waterloo! You were reckless over there; come over here and we will take care of you. It might be well to get some one to help you across the Mississippi, and then we will be responsible.

Since you wrote of the good bossies on the Alps, and the nice warm milk in the morning, and the girl who gave it, I have been looking more carefully at my bossies and find there is a real virtue and goodness in them, and I like them better.

I think you have neglected Minnesota. Perhaps she has you, but you are too good hearted to retaliate, and in order that you show and develop that christian spirit, come right away and talk to us, and let's be acquainted. We will reciprocate in some substantial way. Your way of doing business in the FARMER is or ought to be, our way, and we want to learn it. Latitude, soil, climate being similar to Wisconsin, what is good for one is equally so for the other. A. A. HUNTINGTON.

WINNEBAGO CITY, Minn.

On Election Day

We trust that the matter of the State Fair will be made one of the themes for discussion. We may also be permitted to suggest to the working friends of the FARMER, that Election Day will afford a fair opportunity to obtain subscriptions. By so doing they will advance the industry of the State generally, while they, at the same time, confer a favor on their neighbors who have not hitherto made the acquaintance of the only journal in the State devoted solely to their interests.

Farmer Premiums.

See announcements in Publishers' Corner. This month we shall endeavor faithfully to redeem all our promises as to distribution of strawberries, grapes, blackberries, raspberries &c. Great care will be taken in putting up the plants to insure their arrival at their respective destinations promptly and in good order, and we hope all our friends who receive them will take just as much pains in putting them out. They shall go from the hands of our agents in good condition, and if any of them fail to live and flourish, the blame must attach to either the Post Office, the carelessness or want of proper knowledge on the part of those who plant. Just now (March 20th it is bitterly cold, and it may be sometime before it will be advisable to distribute.

Valuable Communications

From A. G. Hanford, Thos. Bewick, M. G. Alma, F. C. Curtis, L. Wooster, G. D. H, "Nina," "A Farmer's Wife," "Elsie," "Ego," F. E. Pease, J. S. Stickney, J. R. Mosher, J. C. Plumb, J. A. Shaw, J. H. Sanford, and others are crowded over into next number. Most of them are horticultural, and are deferred because of a superabundant amount of matter furnished for that department. Judging from present appearances, however, much of the work sometimes done in April will this year be done in May; so that the articles referred to will not suffer materially by the delay.

A Good Chance for Grapes.

Mr. Isaac Atwood, of Lake Mills, Jefferson Co., Wis., has a hundred thousand grape vines, embracing the most popular varieties; all of which he is ready to deliver to the trade, or sell at retail, at the lowest cash prices. Send for Descriptive and Price List.

Fruit Enquiries from Pierce Co.

What varieties of the apple would be most likely to succeed in this climate? You are aware that this county lies in a cold latitude, where we have the cold northern and western winds sweeping from the Rocky Mountains. I would be glad to hear our Wisconsin fruit-growers express their opinions in relation to growing fruit in this section. Does the Fruit Growers' Association of Wisconsin still exist, and do they hold discussions on the subject, as they did in 1858-59-60? and if they do, will they be published in the Transactions as formerly? Will there be a volume of Transactions issued this year?

One reason of asking the above questions is to find out the best varieties of apples for this section, as I am anxious to raise some fruit. I set a few trees last season, and have had good luck with them so far; and I wish to set some more this spring, and wish to learn the best varieties for this locality, before ordering.

I have received two Nos. of the FARMER and like it, so far, well. M. D. PROCTOR.

RIVER FALLS, WIS.

ANSWER.—Our correspondent will find the information he requests, as to varieties of apples in this No. Mr. Plumb's list of "hardy varieties" was published in Nov. No. The Fruit Growers' Association has been in abeyance for some time, but is about reviving, and will hold an Exhibition in connection with the State Fair. Transactions will be published in next volume issued by the State Agricultural Society.—ED.

[ADVERTISEMENT.]

The Stallion "Princeton."

MESSRS. HOYT & CAMPBELL:—I have recently purchased half of the celebrated thoroughbred Stallion, "Princeton," also half of the justly celebrated Spanish Jack, "Young Warrior," from H. & S. Rublee, of Beloit. They will be kept at my place this season, near Taften, Grant Co, Wis. JOHN BATIE.

Report of Fruit-Growers' Association

For 1863 has *not* been published.

QUERIES AND ANSWERS.

Mole Drainer.

ED. FARMER:—Can you give any information of the mole drainer, its success, its cost, and where it is to be bought.

What is the best book on sheep for a farmer to have? JAMES HARDY.

GENESSEE, WIS.

[The Mole Drainer succeeds well in stiff, tenacious soils, free from stone. Cost, $[illegible] Can be had of———

Randall's Practical Shepherd is the latest work on sheep husbandry.—ED.]

Laying down Grape Vines.

ED. FARMER:—When is a good time to lay down grape vines, to have them take root, and how do you do it? E. T. TAYLOR.

MUKWONAGO, WIS.

[Select a cane of last year's growth, having a well advanced shoot. About the middle of June, by a slanting gash cut it half off; bend over into the furrow prepared for it, and bury to the depth of three or four inches, pegging down at a point near to the cut, and on the side towards the end of vine; cover over, water and mulch. It will soon take root and new sprouts will start. Will give illustrations of method in June No.—ED.]

Tobacco.

ED. FARMER:—I have got about five acres of land nicely fitted, and I have been advised to plant it to tobacco. Where can I get seed, and what kind is the best? I am told that you now have it or will have it to distribute. If so, please to send me some, and I am willing to pay you for your trouble and expense. W. D. STROUD.

OSHKOSH, WIS.

[The Connecticut Seed Leaf is said to be the best variety for cultivation in this State. We have none of the seed. Mr. J. R. Hiestand of Madison, has.—ED.]

Beardless Barley.

C. J. Graves, Union, Rock Co., says he has a quantity for sale. Mr. Brown and others will please take notice.

Broadcast Grain Sowers

Are called for by parties who wish to know our opinion as to the relative value of different patents. There are several kinds manufactured in the State, but none of the proprietors hare enterprise enough to advertise. For various reasons *drilling* is superceding broadcasting in most parts of the State. We have not seen all the broadcast machines in operation, and cannot, therefore, safely answer our correspondent's question.

Wants.

Mr. Christian Monson, of Leeds, wants a small quantity of the "Seven-headed" or California wheat. Who has it?

Mr. J. H. Gould wishes to know where the seed of the mammoth Marblehead Cabbage, and the Stone Mason variety can be had.

Subscriptions by Mail, &c.

Can we send subscriptions by mail at your risk? (1) What soil and location are best for grapes? (2)

[(1) Yes, as many as you please. (2) A dry porous soil; gravelly hillside, best.]

South Down Sheep.

I would like to enquire, through the FARMER, of some brother farmer who has had experience in raising sheep and wool, the relative profits of the South Downs and the Spanish Merinos; which proved the most profitable here in the West; which are the hardiest? I understand there is quite a number of flocks of South Downs in the southern part of the State. I would like to hear from some of them, and what success they have had with them. It would be of interest to quite a number of persons in this section.

MUNGO.

FOND DU LAC.

Stump Machine Wanted.

MR. EDITOR:—Can you inform me through the FARMER, where a good stump machine can be purchased? JOHN AVENELL.

AVOCA, WIS.

[No, we cannot. There are, probably, several agencies in the State, but the parties haven't enterprise enough to advertise. A powerful chain, with the trunk of a small tree for a lever, is a very simple apparatus, by means of which a strong team will easily twist off stumps pretty well decayed.—ED.]

Italian Bees

Can probably be had of Dr. Kirtland, Cleveland, Ohio.

Chinese Sugar Cane Seed

For sale at this office at 37½ cents a pound; if sent by mail, 45 cents.

DOINGS OF AGRICULTURAL SOCIETIES.

Dane Co. Ag. Society.

The monthly meeting of this Society was held in the FARMER Office, Saturday, Feb. 27, at 2 o'clock, p. m.

At its reorganization it was resolved to hold stated monthly meetings for the purpose of discussing subjects relative to agriculture. The subject of seeds was considered at the first meeting. The different varieties of wheat, Rio Grande, Club, Golden Drop, White Hedgerow, and White Minnesota, were regarded as inferior to the Scotch Fife—the latter variety being recommended for general cultivation, having been fully tested.

Deterioration of seeds was regarded as the result of poor cultivation. Until this was overcome, a change of seed was considered of value. By good cultivation and judicious selections of seed, any crop can be made quite as perfect as desired. From the Department of Agriculture, at Washington, seeds and cuttings are expected—the Sec'y having corresponded with the Commissioner of Agriculture in regard to the matter.

The subject for the next meeting will be Seeds, and the Preparation of Soils. On motion, the Society adjourned to meet at the same place on the afternoon of March 5th.

WM. R. TAYLOR, Pres.

O. S. WILLEY, Sec.

MADISON, Feb. 29, 1864.

[ADVERTISEMENT.]

To Citizens of Wisconsin and the Northwest:

INSURE WITH THE MUTUAL LIFE INS. CO. OF WIS.—*It is the best Company for Western men!* The reasons why it is the best Co. are: That it is a Western Company, made up of and managed by western men, doing all or nearly all its business in the Northwest, and concentrating in this one Company a superior class of risks, mostly of young men, or men in the prime of life, and they selected with as great care in regard to eligibility to Life Insurance, as are the risks of any other company.

It is true that the Company have neither the age or accumulations of some of the Eastern companies, but is gaining both very fast; is vigorous for one of its age, is doing a large business, having issued 337 policies in the month of December just passed. It is doing its business as economical as the same can be done anywhere, having for its guide the experience of all older companies, and among its managers some of the best business men in the Northwest.

It has thus far made none but safe investments, and has paid all losses promptly, and we cannot see why the probabilities of the future may not be identified with that of the Great Northwest. This is the first successful effort ever made to build up a similar institution in the West, and should be the pride, as it certainly is the interest of every business man in this section of the States to identify himself with its growth.

This Company issues nonforfeiting policies, upon which the whole life premiums are paid in five or in ten annual payments, also the endowment policies, which become due and payable to the party insured upon his attaining a given age, or to his heirs at his death, should he die before attaining the specified age.

OFFICERS.

S. S. DAGGETT, Pres. JAS. BONNELL, V. Pres,
C. D. NASH, Treasurer. A. W. KELLOGG, Sec'y.
E. B. WOLCOTT, Con. Physician.
S. S. Daggett, Jas. Bonnell, John H. Van Dyke, H. L. Palmer, Chas. F. Ilsley, *Executive Committee.*
H. G. WILSON, Gen. Agent.
J. G. MCKINDLEY Ass't Gen'l Agent.
Office No. 14, Wisconsin St., Milwaukee.
M. D. MILLER, Agent, Madison.
E. SPRAGUE, Traveling Agent for Central Wis.
January 15, 1864. aptf

NOTICES OF NEW ADVERTISEMENTS.

J. RICHARDSON, of Janesville, advertises the "Badger State Drill." Notice of this drill was omitted last month by mistake of the printer. It is highly recommended, and, we presume, will gain new favor this season, in consequence of the improvements recently made.

SEE J. Wesley Jones' advertisement of choice vegetable and flower seeds. Our own dealings with Mr. J. have been of the most satisfactory character, and we feel warranted in strongly endorsing his claims to a large patronage.

BURSON'S American Grain Binder appears to be growing in favor. See advertisement.

TABERS & Co., of Ohio, advertise the "Quaker Mower and Reaper."

"THE AMERICAN CONFLICT." By Horace Greely. We have received specimen pages of this ably written and beautifully printed historical work. See advertisement.

SEE Phœnix's advertisement of Bloomington Nurseries. A new descriptive, priced catalogue, just received, convinces us that he has lost none of his characteristic enterprise.

THE EAGLE Works Manufacturing Co. are ready to fill orders for steam engines, saw mills, sugar cane mills, &c. Address P. W. Gates, Chicago.

VICK'S Illustrated Catalogue of seeds is advertised. We have received a copy, and can heartily commend it.

SEE advertisement and publishers' notice of Yokohama squash.

THOS. HISLOP, of Milwaukee, again offers a fine assortment of vegetable and flower seeds. A careful and reliable dealer.

WESCOTT'S Churn and Butter Worker will be advertised in next No. We have just seen butter made by this churn in 3¼ minutes, and that too under circumstances which warrant the belief that butter may be made by it in 2 minutes. It is now on exhibition at the Capital House. Address Wm. Booth, Janesville.

SEE advertisement of Sheldon Bros. under Table of Contents.

PUBLISHERS' CORNER.

Seeds!!—New and Choice Garden and Flower Seeds.

See addition to our Premium List on last page of cover. This offer is intended for the benefit of *New Subscribers* and the *working* friends of the FARMER.

ALSO, if any subscriber to whom we sent Strawberries last fall, and who failed to get them in good condition, will send us his address (enclosing stamp) we will put his name on the list for seeds.

We have received, at considerable expense, some *new* varieties of garden and flower seeds, outs of which will be published in the FARMER, from time to time, and shall distribute them to all who entitle themselves to such favors by inducing others to subscribe for the FARMER. Read the following communication:

PUBS. FARMER:—Enclosed find $1 for the FARMER for 1864. Among the many seeds you sent me last spring, I consider the *O'Rourke peas worth the whole price of the* FARMER. I can't do without the FARMER. Why don't every farmer take it? D. WHITCOMB.

Splendid Lithographic View

Of the City of Madison, the Capital of Wisconsin. We have added to our list of inducements to Agents one of the above engravings for every five subscribers. The sketching and engraving were executed by Louis Kurz, a young artist of Milwaukee. It embraces a fine view of the new Capitol, the Park, University, Lunatic Asylum, Water Cure, Court House, Cathedral, Churches, Business blocks, and residences of the city. It is a work of much merit and will make a handsome picture for your parlor.

See last page of cover.

YOKOHAMA SQUASH.—The attention of our readers is called to a new kind of squash, which is advertised in this number. To any one who is not already a subscriber who will send us $1.03, we will send the current volume of the FARMER and a package of the seeds. An old subscriber will receive a package, on sending us the name of a new subscriber and $1.03

Distribution of Premiums.

We shall commence the distribution of premiums about the 15th to 20th of April, weather permitting. Parties residing near will please call at this office, or send.

[Advertisement.]

SPECIAL PREMIUM.

Believing the Sorghum interest to be a great and important one to this State and the Northwest, and wishing to do what we can to develope it, we offer the following premium to all, who are disposed to compete for it, in the State.

For the best twenty-five acres of cane grown in the same neighborhood, by one or more parties,

A complete set of our most improved *Two Horse Separate, Geared Sorghum Machinery*, with Bagasse carrier, evaporator, heater, smoke pipe, skimmers, and all the fixtures complete for setting up and operating, worth at the shop $260, cash, and capable of making from 150 to 200 gallons of syrup per day.

Parties proposing to compete for the foregoing premium will need to send to me for entry blanks and circular of instructions, &c. The earlier attended to the better.

D. J. POWERS.

Madison, Wis., Feb. 20, 1864.

The Yokohama Squash.

THE Subscriber offers for sale seeds of this new Squash raised from those sent to him from Japan, by his brother, Mr. Thomas Hogg. It is without doubt one of the best squashes grown, and is a great acquisition to our list of vegetables as it combines more good qualities than any other squash grown in this country. The surface is strongly ribbed, the skin warty, in the early stages of its growth of a pale green color, becoming of a very deep green when more advanced, and when fully ripe is of a deep, dull orange color.

It is of the Turban class, measures from four to six inches thick, and from six to twelve inches across, and weighs from six to twelve pounds. The flesh is of a deep orange color, very finely flavored, sweet and dry, very fine grained and without any fibre. It is excellent stewed, and when baked it much resembles a sweet potato in flesh and flavor, and is superior to any pumpkin for pies. It is a robust and vigorous grower, running very freely, having the peculiarity of rooting at the joints like a Verbena, and is a very prolific bearer. It comes early into bearing, and is excellent for cooking when no larger than an ordinary bush squash, so that a continuous supply for a family during the whole season can be had by growing this variety only. It keeps until February or March.

The seeds are warranted pure, being grown by myself. They will be put up in packets containing ten seeds each, at the price of twenty-five cents per packet, sent to any address, postage free. JAMES HOGG.

Yorkville, New York City.

Packets of seeds can also be obtained of H. B. Lane, 151, Nassau st., J. M. Thorburn & Co., Fleming & Davidson, Alfred Bridgeman and John Vanderbilt. New York City; Washburn & Curtis, Boston; James J. H. Gregory, Marblehead, Mass.; B. K. Bliss. Springfield, Mass.; R. Buist & Son, H. A. Dreer and D. Landreth & Son, Philadelphia; John Saul, Washington, D. C; James Vick, Rochester, N. Y.; Wm. Thorburn, Albany, N. Y.; and at the Office of the Wisconsin Farmer. aptf

SEEDS!

THOMAS HISLOP, MILWAUKEE, WIS.

SEEDSMAN and Florist to the Wisconsin State Agricultural Society, Importer and dealer in all kinds of Farm, Garden and Flower Seeds, Green house and bedding Plants, choice hot house Grape Vines, florists' Flowers generally, Garden Books and Implements. &c, &c., begs to announce to his customers and the public that he is, as usual, prepared to furnish all the newest and best kinds of European, as well as American, Garden and Flower Seeds, of which catalogues may be had on application.

He has also for sale the celebrated Wethersfield

HAND SEED-SOWER.

Price, $7. Adapted to sowing all kinds of seeds in drills

Milwaukee, March, 1864. ap2

STATEMENT
OF THE
Madison Mutual Insurance Co.
FOR THE YEAR ENDING
DECEMBER 31, A. D. 1863.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 103, of the General Laws of 1858.

Total amount of accumulations..... $473,170 84

ASSETS.

Unimpaired premium notes of policy holders	$398,256 36	
Cash on hand and due from policy holders and agents for cash premiums	67.747 48	
Real Estate	6,000,00	
Office furniture and fixtures	1,167 00	473,170 84
Whole No. policies issued		33.165
Am't of outstanding risks thereon		$24,021,935 94
Number of policies issued in 1863		11.107
Am't of outstanding risks thereon		$8,902,000 00
Am't premium notes therron		131,481 33
Am't cash premiums thereon, less commissions to agents		70.629 48
Am't interest collected and charged		1,999 55
Total am't losses reported		$34.551 43
Total am't losses paid		32,668 06
Losses adjusted and due, awaiting call		525 00
Losses adjusted and not due		none.
Losses unadjusted and awaiting further proof		2,008 83
All other claims against the company		815 31
Am't paid for furniture and fixtures		167 77
Am't of expired premiums		14,404 19
Am't paid for advertising and postage		1,011 38
Am't paid for printing		1,383 16
Am't paid for policy stamps		2,305 35
Am't paid taxes to Com'r Internal Revenue		416 68
Am't paid for exchange		113 64
Am' paid for cancelled policies		526 36
Expenses paid, including all compensation to Officers and Directors, stationery, clerk hire, rent, fuel, lights, and other incidental expenses		5,263 90

STATE OF WISCONSIN, }
Dane County, } ss

John W. Boyd, President. and Denison Worthington, Secretary. of the Madison Mutual Insurance Company, do solemnly swear that the foregoing statement is true and correct according to the best of our knowledge and belief.

JOHN W. BOYD,
D. WORTHINGTON,

Sworn and subscribed before me, this 23d day of January, A. D. 1864.

D. ATWOOD,
Notary Public.

DIRECTORS AND OFFICERS
OF THE
MADISON MUTUAL INSURANCE CO.
FOR THE YEAR 1864.

DIRECTORS.

J. W. BOYD, Walworth Co.
EDWARD O'NEIL, Milwaukee Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
OBRIN GUERNSSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
JOHN Q. ADAMS, Columbia Co.
EDWARD PIER, Fond du Lac Co.
N. C JANES, Winnebago Co.
JOHN TOAY, Iowa Co.
H. PARKER PAINE, Minnesota.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. R. MONTAGUE, State Agent for Minnesota.

LOSSES PAID BY THE MADISON MUTUAL INSURANCE COMPANY IN THE YEAR 1863.

Sam'l M Wells, Summit, Waukesha co	$500 00
George Y Freeman, Galesville, Trempeleau co	15 00
John Barnard Malone, St Croix co	3 50
A C Wiggins, Centre, Rock co	201 00
A Richmond, La Cresse	185 00
E Bement, Fitchburg, Dane co	821 00
T D & D M Kanouse, Cottage Grove, Dane co	252 47
J & D N Collar, Dover, Racine co	12 00
J J Reiser, Kendall, La Fayette co	4 25
J Wearne, Mineral Point, Iowa co	46 38
Wm Jewell, Dodgeville, "	78 90
Sam'l Blumer, New Glarus, Green co	8 00
D D Utt, Potosi, Grant co	3,073 24
Wm Cooper, Marshall, Dane co	675 37
D Sutton, Merrimac, Sauk co	10 00
M Montgomery, Union, Rock co	47 13
Alex Stewart, Troy, Sauk co	581 28
J C Loomis, Millville, Grant co	200 00
J B Harelson, Lancaster, Grant co	1,050 00
C Ostrander, West Point, Col co	649 56
M Weishan, Franklin, Sauk co	77 82
C Spann, Sheboygan Falls	14 50
Geo B Waite, La Prairie, Rock co	677 18
J Howlett, Black Wolf, Winnebago co	5 00
Wm Rentar, Pewaukee, Waukesha co	31 50
E M Blanchard, Waukesha	2 00
Jas Murphy, Hickory Grove, Grant co	15 25
R W Couch, Watertown, Jeff co	221 72
Jas Davis, Bradford, Rock co	5 00
H Bullard, Union "	55 00
C Williams, Mineral Point, Iowa co	25 00
Lars Moe, Dodgeville, "	171 25
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And all the best Florist's Flowers, viz: cinerarias, cockscombs, pansies, pelargoniums, carnations, &c., &c

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We offer an unequalled collection of Asters, in all the variety of Pivone, Pompone, Pyramidal, &c. of our own raising, which have been made a specialty for more than 20 years, and have been awarded prizes by the Mass. Hort. Society, as follows:

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FOR 1864.

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FLOWER SEEDS, Delaware Grape vines, Peonias, Roses, Gladiolus, flowering shrubs, plants, cuttings &c. sent by mail, on receipt of price.

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New and Choice Varieties of Vegetable Seeds.

I INCLUDE in this list only such as are new and valuable and not readily obtained. The most of them I have received from the celebrated English firm of Carter & Co., London, and they can be confidently recommended including a few American novelties of great merit.

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Advance Pea—A dwarf green wrinkled marrow of fine flavor, long pods, well filled up, and podding well up to the haulms, very prolific, and nearly as early as Daniel O'Rourke. "The best wrinkled marrow in cultivation." —Gardeners' Chronicle. Per pkg. 25c.

Carter's Early Champion Forcing Potato—The earliest frame potato in cultivation, described by the Gardener's Chronicle as "a kidney potato, the earliest yet introduced." Orders for this potato will be filled in April, as soon as all fear of frost is passed, by mail, post paid, and as my stock is small, orders should be sent early. Per tuber 25c

Sutton's Student Parsnip.—This was originated by Prof Buckman, of the Royal Agricultural College, Circenster, from wild parsnip, and will be found a great acquisition. Per pkg. 15c.

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Carter's St. Osyth Beet—Medium size, good shape, short top, rich deep blood red color, fine flavor, decidedly the best beet in cultivation. I grew this the past year and found it fully equal to the recommendation. Per pk. 25c

Henderson's Pine Apple Beet—Compact, short top, roots medium sized and of a deep crimson, good flavor. 10c.

Little Pixie Cabbage—Very early, small, delicate flavor. 15c.

White Japanese Melon—This is the finest flavored thin skinned muskmelon yer introduced. The seed is from Japan. No lover of this fine fruit should fail to try this variety. 25c.

Flower Seeds by Mail.

Flower seeds, from their compactness and light weight, can be safely and speedily transported by mail to any part of the country, thereby giving those who live remote from the larger towns and cities, where they can be procured, nearly an equal chance with those living in them, for procuring at a moderate rate all the choice and rare varieties. For the accomplishment of this purpose, we offer the following collections, comprising the most beautiful and showy annuals, biennials and perennials, which will be sent by mail, free of postage, to any part of the United States, at the following prices:

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12 ex. fine var. Truff, new peony fl'wd	$1 25
24 selected Truff "	2 50
6 splendid " peony perfection	1 00
6 finest " globe "	75
10 beautiful " dwf chrysanthemum	1 00
10 splendid " giant emperor	1 50
8 splendid var Reid's new Quilled	75
4 finest var. Double Cocardeau	50
12 ex. fine var. Pyramidal bouquet	1 00
12 superior var. Quilled	1 00
8 beautiful var. new Ranunculus fl'd	75
4 very fine var. new Hedgehog	40

In addition to these, I put up a collection of Asters which I consider the finest ever sent out; it contains 10 packages of mixed colors of the following kinds, viz:—Truffaut's New Peony, Peony Perfection, Giant Emperor, Imbrique Pompone, German Quilled, Ranunculus, Hedgehog, Reid's Improved, La Superba, and the beautiful new Aster Splendens. No one who delights to grow fine flowers should fail to send for one of these packages. Price $1.

BALSAMS—12 finest prize Balsams	$1 00
GERMAN STOCKS—12 superb new varieties, 10 week large flowering	1 00
" " 8 beautiful new varieties, perpetual large flowering	75
" " 12 select prize, var. Hollohocks, English, from Downie, Laird and Lang's celebrated collection, saved from prize flowers	1 50
10 finest var. Marigold	75
6 newest var Marvel of Peru	40
5 select var Nemophila	25
12 distinct var Ornamental Grass	1 00
12 " " " Gourds	1 00
8 beautiful var Phlox Drummondii	75
Finest var Petunias	50

GERMAN FLOWER SEEDS.

12 splendid var Pinks, Carnation	2 50
12 " " " Picotee	2 50
8 distinct var Portulaccas	45
8 finest Sweet Peas	40
6 splendid var Scabiosa, large fl'd	50
6 extra fine var Snapdragon	50
12 selected var Salpiglossis	75
12 superb var Wallflower, double	75
8 superb new var Cockscombs	75
9 finest var Calliopsis	35
6 selected var Climbing plants	50
20 " " " " including newest	2 00
8 distinct var Delphinium	75
18 finest var Delphinium Chinensis	75

EXTRA INDUCEMENTS.

In almost every neighborhood there are a few persons of taste who cultivate flowers to the best of their ability and to the extent of their means. These may easily club together and send their orders in one letter, and thus avail themselves of the deduction I make on large orders. There are few persons who with little effort could not obtain the orders of half a dozen neighbors by simply exhibiting the Catalogue, which will be sent free to all who desire it for this purpose, and thus confer a great benefit on their friends and aid in the more general dissemination of choice seeds throughout the country. For the purpose of encouraging the formation of such clubs, and as a slight compensation for the effort, I make the following liberal offer:

Persons sending $1 may select seeds at Catalogue prices amounting to $1 10.

Persons sending $2 may select seeds at Catalogue prices amounting to $2 25.

Persons sending $3 may select seeds at Catalogue prices amounting to $3 50.

Persons sending $4 may select seeds at Catalogue prices amounting to $4 75.

Persons sending $5 may select seeds at Catalogue prices amounting to $6.

Persons sending $10 may select seeds at Catalogue prices amounting to $13.

These will be put up together and sent to one address, or in separate packages and mailed to the address of each individual forming the club, as may be desired. In all cases the postage will be prepaid. The same deduction will, of course be made to any one person ordering for himself alone.

I would again call attention to my selection of Asters. In collections which I think is the finest ever offered. I sell the collection at $1, yet if selected separately from the Catalogue it amounts to $1 45. Also my German Stocks, Balsams, Pansies, Carnations, Picotee Pinks, Cinerarias, Calceolaria &c., all of which have been received from the most celebrated growers in England, Scotland and Germany, and are of first quality. If it should be inconvenient for you to make your own selection, by enclosing the amount you are desirous of expending and stating for what purpose the seeds are required, you may rest assured that I will make the selections in the most judicious and liberal manner.

Persons wanting a larger quantity or wanting to act as agents, will please address me.

During the past two years, our collections of Flower seeds by mail have been sent to almost every State in the

Union, and, so far as we have learned, have given universal satisfaction, and it is our earnest endeavor to make these collections not only second to none, but to make them superior to those sent from any other establishment in the country.

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Catalogues will be sent to all applicants upon receipt of a three cent stamp. Address

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Price $75—one half cash on delivery, balance approved note due the 1st of October next.

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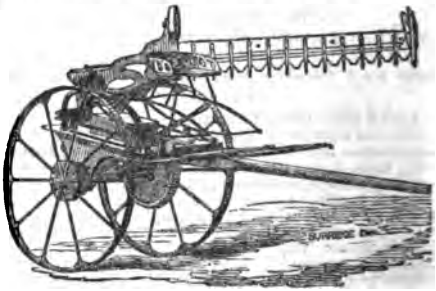

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Guide to the Flower Garden

OF 1864.

MY NEW Catalogue and Floral Guide is now published and ready to send out. It contains accurate descriptions of the leading floral treasures of the world, with full and plain directions for sowing seed, transplanting and general culture. Also a list of choice seeds for the Vegetable Garden, with necessary instructions for planting and culture.

My new *Catalogue and Floral Guide* is a beautiful work of fifty large pages, illustrated with twenty-five fine engravings and one splendid colored plate of the *Double Zinnia*. It will be sent, postage paid, to all who apply, enclosing ten cents. Address JAMES VICK.

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CLIMAX ADJUSTABLE

Sugar Cane Mills!

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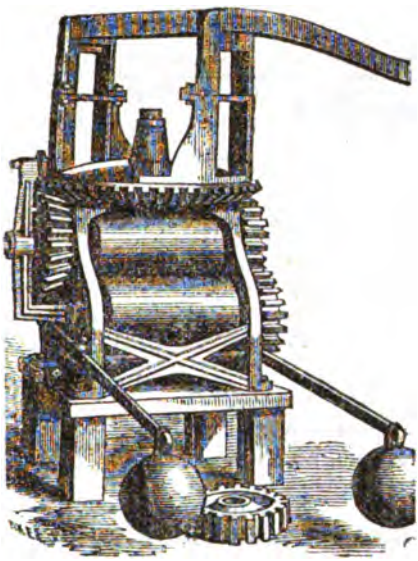

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This mill took the *FIRST PREMIUM* at the Illinois State Fair last fall, after a thorough and rigid trial. It receives commendation from the press and public everywhere. The reporter for the Chicago *Tribune*, from the Sorghum Convention held in this city on the 3d, 4th and 5th of the present month, in speaking of the mills on exhibition, remarks:

"The Climax Mill of Skinner's patent seemed to have the most friends, and warm approbation for it was expressed by all present who had used it the past season. Your readers will remember that this mill took the first premium at the Illinois State Fair at Decatur, last season and it is the only one we are acquainted with that adjusts its pressure by lever and weights, instead of by set screws."

The reporter for the Chicago *Times* says:—"There were several other mills on exhibition, but none that possesses the same adaptability for work."

Madison, February, 1864.

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THE demand for our vines is largely increasing every season. Parties wishing to purchase this spring would do well to order early, as the demand promises to exceed the supply.

Send for catalogue, enclosing stamp.

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mh1 Box 155, Pittsburg, Pa.

1862. 1863. 1864.

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THE BADGER STATE DRILL

AS MADE by R. J. Richardson is a great improvement over the old drill, both in workmanship and lightness of draft. This drill has always been the easiest for the team of any drill in use, and it is now rendered easier by substituting the chain for the evener, which makes the drill run much steadier and consequently easier handled. Experience has convinced all that the Badger Drill is one-fifth easier for the team than any drill used in this State.

An examination of its principle will satisfy any one that it is more accurate in its distribution of the seed than any other drill.

The workmanship of the drill will show for itself. Please examine it.

The Badger State Drill is sold at Janesville at the following prices for 1864:

9 Tooth, $75, Seeder $5.
10 Tooth, $80, "
11 Tooth, $85, "
12 Tooth, $90, "

The Badger has a Corn Planter to be attached to the drill that will plant two rows at once any desired distance apart. It drops in hills, any distance from 3 to 6 feet apart. The planter goes with the drill without any extra charge.

The Badger is warranted in every particular or no sale.

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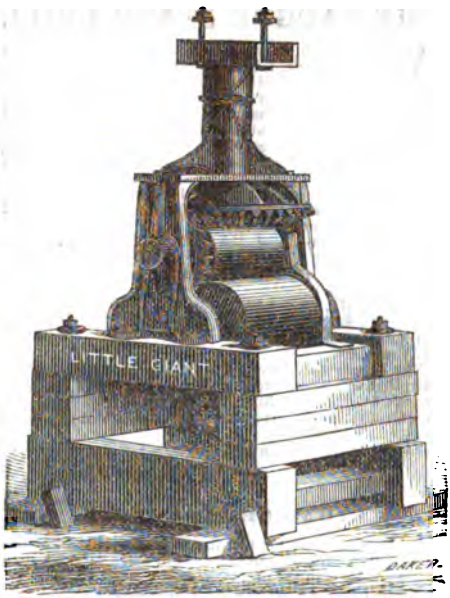
FOR 1864.
SUGAR CANE SEED, &c., &c., &c.



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We have given the subject especial attention, and fully believe that our sets of machinery are more perfect and complete than anything else of the kind ever before offered to the public. Our

LITTLE GIANT
ADJUSTABLE HORIZONTAL
CANE MILLS

Of all sizes, from One Horse up to Eight Horse Power, and capable of expressing the juice for 100 to 500 gallons of good syrup per day. Are conceded on every hand by good judges to be the most *compact, simple, strong and durable* machines yet devised.

The Adjustable Action

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We challenge all creation on the strength of our mills, and will make a

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For any Horizontal mill of the same size, weight and cost, that will stand an equal test without breaking—such competing mills being of the style manufactured by the parties *for sale*, and not especially made of different materials for the occasion.

Whilst our mills and our machinery are the best and most perfect made, still we **sell cheaper** than even poor, old style machinery is usually sold.

We shall be happy to forward circulars with descriptive cuts &c. to all proposing to purchase.

Fifty Bushels Javian Cane Seed

Of first rate quality. For sale by bushel or in pound papers. Read the certificate of the gentleman who raised it. He is an entirely reliable man.

Rosemond, Christian Co., Ill., Dec. 1864

This is to certify that I have cultivated the Javian Sugar Cane the past season, and have no hesitation in pronouncing it the best variety of which I have any knowledge, it being early in ripening, yields an excellent syrup and granulates readily. M. D. SEWARD.

POWERS & SHERWIN.

Madison, Wis., Feb. 1, 1864.

BELLE COTTAGE NURSERIES.

1 1-2 Miles South of Depot, Janesville, Wisconsin.

IS the place to get apple trees that are adapted to Wisconsin winters, such as 1857 and 1864.

Small sized trees for successful planting, from high, open prairie soil.

Apple trees, crown grafted, best varieties, 4 to 6 ft. high $20 ℔ 100.

Apple trees, common varieties, root grafted, 6 to 8 feet high. $12 ℔ 100.

The same when dug by customers, $10 ℔ 100.

Seedlings, all sizes, $2 to $10 ℔ 100.

Cherry, Pear and Plum trees, 12c to 50c, Evergreens, Ornamental shade trees and shrubs. Roses, Peonies, Climbing vines, &c., &c.

Choice selection of Grape vines, true to name—also currants, gooseberries, pieplant, strawberries, blackberries, &c.

Have spent much time and pains in cultivating the Raspberry—plants at wholesale or retail.

"Live and let live;" prices accordingly. To the trade and at wholesale as low as can be found West

All orders should be accompanied with the money—bank notes—or good references. Letters of inquiry with stamps, and plain directions how packed, and by what route shipped. After shipment, at the owner's risk.

GEO. J. KELLOGG.

Janesville, Feb. 5, 1867. mh3

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CURES scab, ticks and lice on sheep or cattle, adds over a pound of wool to the fleece, improves its quality, and adds to the general health of the sheep, without danger from taking cold.

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TWO Through Trains Daily between Milwaukee and Chicago. Close and reliable connection in Chicago with all the *Eastern, Southern and Southwestern Lines.*—Also connects with the Racine & Miss. R. R. at Racine, and with Ken., Rockford & Rock I. R. R. at Kenosha.

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NEW HARDY GRAPES.

A FEW hundred extra strong vines for early bearing, of the following fine varieties:—Concord, Delaware, Diana, Hartford Prolific and Rebecca, at 75c to $1 each.

Red Dutch Currants.—Strong plants, $5 ℔ 100 $30 ℔ 1000.

A. G. HANFORD & BRO.
mh2 Columbus Nursery, Columbus, Ohio.

TENTH ANNUAL REPORT

OF THE

DODGE CO. MUTUAL INS. CO.

January 1st. 1864.

Amount of Capital Jan. 2d, 1864.....$94,377 96

CONSISTING OF

Premium Notes	$80,014 12	
Real Estate and Office Furniture	836 49	
Cash on deposit and in Co's Office	2,096 53	
U. S. 5.20 Bonds	2,500 00	
Cash loaned on Call	2,149 00	
Bills Rec having from 1 to 6 mos. to run	6,781 82	
		$94,377 96
Whole No. Policies issued since Jan 1. 1863		1,210
Whole No. Policies outstanding Jan. 1, 1864		6,010
Whole amount at risk thereon		4,733,538 00
Cash Premium		9,390 16
Cash received for interest, and other sources,		875 37
Paid unearned Premium		64 41
Paid expenses of Officers, Agents, Printing, Postage, Rents, Fuel, Stamps, Taxes' &c		5,247 86

Paid the following Losses since Jan. 1 1863:

Peter Phelan, Farmington, Jefferson co	270 38
L C McCloary, Sextonville, Richland co	8 00
J S Hobart. Royalton, Waupaca co	15 25
E R Disbrow, Taycheeday, Fond du Lac co	250 00
G W Anderson, Princeton, Green Lake co	650 00
G Madsen, Cato, Manitowoc co	15 25
D Mauser, Ellington, Outagamie co	15 62
Platt Fish, Deltona, Sauk co	667 00
J A Northrup, Clyman, Dodge co	615 20
Eliza A Mansfield, Greenbush, Sheboygan co	4 13
Carl Rusch " "	13 00
N Blodgett, Stockton, Portage co	150 00
F Steink, St. Marie, Green Lake co	388 00
Alvah Knapp. Metomen, Fond du Lac co	43 86
Cecelia Drifarst, Mashfield "	222 50
Philip Goetz, Newton, Manitowoc co	67 25
J Winberger, Leroy, Dodge co	63 75
F Rathermel, Plainfield, Waushara co	12 00
J N Hall, Forrest, Fond du Lac co	450 00
Rudolph Jaeger, Franklin, Sauk co	92 50
C L Gould, Sheboygan Falls, Sheboygan co	209 00
G W Nelson, Princeton, Green Lake co	300 00
August Rork, Farmington, Jefferson co	300 00
Total	$4,813 69

There are no unsettled claims against the Company of any kind. All claims have been adjusted promptly and paid. We still adhere to our rule of insuring nothing but *Farm Property and isolated Dwellings*. Our capital is steadily increasing and the Company stands second to none, and the risks they assume are of the safest kind.

We ask your continued patronage and that of your friends.

EDWIN HILLYER, Sec. GEO. W. BLY, Pres.

JOS. T. HILLYER, Treasurer.

Logan Graves, Wm. G. McElroy, Geo. Babcock, M. L. Coe, L. B. Hills, and Hanson Ely, *Directors*.

A. F. WALTZINGER

Wholesale and Retail Dealer in

CANDIES, FRUITS, CONFECTIONERIES.

AND FANCY ARTICLES.

HAS on hand and is constantly manufacturing or receiving the finest Candies Confectionery of every kind. Also Fancy Articles, Toys, Masks, Ornaments, &c

FANCY CAKES ON HAND AND MADE TO ORDER.

☞ *Sociable and Wedding Parties supplied.*

Seasonable Fruits received by Express from the South.

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No. 6 King St., Madison, Wis.

Bloomington (Ill.) Nursery

ESTABLISHED 1852.

160 ACRES OPEN PRAIRIE.

APPLE TREES—1 to 4 years—largest and best stock ever offered; low headed, sound, thrifty, and largely of proved hardy sorts for the Northwest.

75,0000 Pears. Grapes, 40 sorts. Apple, root grafts, packed, 10,000 $70. Small Fruits, Nursery Stocks apple peach, and pear seed. *EVERGREENS*—15 acres, mostly medium and small sizes, 30,000 birch, elm, larch, maple, and tulip trees. Roses, shrubs, bulbs. Grey or White Willow cuttings, packed, 1000 $3 50; 10,000 $28.

Send Red Stamp for new catalogue.

F. K. PHŒNIX.

Bloomington, Ill. mh2

WISCONSIN STATE JOURNAL!

DAILY, TRI WEEKLY AED WEEKLY.

OFFICIAL STATE PAPER!

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DAILY.—Sixty cents a month, or $7 a year, invariably in advance.

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WEEKLY.—Published on Tuesday, Price $2 a year: $1 for six months. In clubs of TEN or more $1 50 to each, invariably in advance.

Specimen copies sent on application.

Address ATWOOD & RUBLEE.
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Nursery and Seed Garden!

MADISON, - - WISCONSIN,

THIS new establishment is now open to Dealers, agents and the retail trade for the spring of 1864. It contains an unrivalled collection of choice Apples. one and two years old, including over 100,000 *Crown Grafted, grown distinct*. Large Sizes in small quantities.

CURRANTS—in great variety—Red, white and Black, one and two years, in large quantities. Also a general assortment of Fruit and Ornamental

Trees, Shrubs, Vines, &c.

The especial attention of the Trade, those wishing to plant largely, and those living remote from Nurseries, is called to this Stock as superior for their wants.

A FULL ASSORTMENT OF GARDEN SEEDS

☞ Sent by mail or Express. Send for circular Price List and Catalogue. Packing done in the best manner.

Address

J. C. PLUMB.
Madison, Wis.

jy63tf

JOHN P. ROE,

IMPORTER AND BREEDER OF PURE-BRED DURham Cattle and South Down Sheep, offers for sale, on reasonable terms, a few fine calves, bulls, and heifers. Color chiefly red Post Office address, Durham Hill, Waukesha Co., Wisconsin.

Muskego, Waukesha Co., Wis., Dec. 18, 1863. jan4t

GRAPES! GRAPES!

GRAPE CULTURE has been a specialty in my business for the last twelve years, testing by actual experiments a great number of new varieties, to ascertain those that would be suitable for the soil and climate of Wisconsin, Minnesota, Iowa and Illinois. No expense of means and labor has been spared in sifting out of the large number of worthless varieties those that would succeed with ordinary care and culture. During this time not less than two hundred thousand plants have been sent out from my grounds through the district of country above mentioned, a large number of which are now in successful bearing, and from which I have received the most encouraging reports. All of which will bear me out in saying that the Grape stands at the head of the class of small fruits, both in profit and pleasure.

To those that plant the Vine. I have now on hand ready for spring delivery, the largest and finest stock of Grape roots ever before offered in the West—consisting of all the New and Old varieties that are desirable, together with a good stock of APPLE, PEAR, PLUM, CHERRY, with *Ornamental and Evergreen Trees.* I claim

1. That my vines are cheaper than can be purchased from any Eastern establishment, when the quality of roots is taken into account.

2. They are all grown in the open air, and not under glass and in forcing pots, as most Eastern plants are.

3. They are raised from large, healthy, bearing vines, of which I have a large stock.

4. That most of them will fruit the first or second season from planting.

Transportation is less, and I hold myself responsible for all mistakes in varieties that I send out.

All orders will be booked and filled as received. Vines and all the Small Fruits securely packed and delivered on railroad free of extra charge.

Send stamp for Descriptive and Price List.

ISAAC ATWOOD.

Rock Lake Vineyard and Nurseries.

LAKE MILLS, Jefferson Co., Wis.

NOW READY.

OUR NEW PRICE LIST OF FRUIT and ORNMENTAL TREES.

APPLE, BLACKBERRIES CURRANTS, RASPBERRIES, STRAWBERRIES, GOOSEBERRIES, PIE PLANT, LOCUSTS, MAPLES, HONEYSUCKLES, SPIREAS, SYRINGAS, TAMARIX, WEIGELIAS.

EVERGREENS.

GARDEN SEEDS, &c.

And will be sent to all applicants, free of charge. Agents wanted to sell first class nursery stock. Our Seeds are Western grown and put up expressly for the Western market. Everything warranted true to name

O. S. WILLEY & CO

Vine Hill Nursery.

MADISON, Wis. Jan., 1864.

E. & C. T. WAKELEY.

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E. WAKELEY. mh10 CHAS. T. WAKELY.

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Full sets, upper or lower, for $15, and upward, depending on the material used for plates.

Persons coming from a distance need remain but a few hours at the office to have a fine set of teeth.

All branches of the profession promptly attended to.

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Office on Pinckney St, over Jones' Hardware Store.

Madison, 1864. f.64

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WHOLESALE AND RETAIL DEALER IN

Millinery Goods, Bonnets, Hats, Caps and Headdresses,

In PORTER'S BLOCK, North corner Capitol Park.

Madison, Wis., Sept. 29, 1863.

GREAT WESTERN NURSERIES.

TOLEDO, - - - - - OHIO.

WE have an extra large Stock of nice grown trees, consisting of

APPLE, DWARF PEAR, ORANGE QUINCE, NECTARINES, GOOSEBERRIES, BLACKBERRIES, GRAPES, CURRANTS, STRAWBERRIES.

Evergreens and Hardy Ornamental Shrubs.

All of which will be sold at low prices.

Trade List and Catalogues sent to applicants.

REITER & MADDOCKS.

TOLEDO, O., 2.20

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, MAY 1, 1864. No. 5.

Farm Work for May.

Completion of grain sowing, the planting of corn, sorghum, potatoes, field beets, carrots, parsnips, rutabagas, beans, &c., the strengthening of fences, if thus long neglected,—these are the chief occupations of this month.

CORN.—Prepare the soil thoroughly before planting. If lumpy, a good harrowing will pay. If the soil be rich, 4 feet is the proper distance between the rows. Marking may be economically done, in mellow soils, by a sled with three runners, made by thick boards three feet in length, and kept in place by cross pieces; or by trace chains attached, at proper distances, to a light pole carried by two men abreast. If not mellow, a very light single plow, managed after the old style, will, probably, answer as well as anything. Four kernels to the hill is the proper quantity of seed. One inch is deep enough to cover, and if the conditions are favorable to germination, three-quarters of an inch is all sufficient.

Late in the month it may be well to drill in a few acres for soiling, or early cutting for hogs. Let the drills be three feet apart, so as to give room for the cultivator or double shovel. The covering may be done by a cultivator with the forward tooth left out.

POTATOES.—Plant early and late. Best method, in rows three feet apart, the hills eighteen inches apart in the rows.

ROOTS are valuable for stock. Don't forget the carrots and rutabagas. Plant in rich, mellow, clean soil; rows or drills two feet apart; rutabagas 18 inches apart in the rows, carrots 12 inches.

BEANS.—They are in good demand at a good price, and can be produced on an inferior soil. Excellent feed for sheep.

BUILDINGS.—Whitewash such as you cannot afford to paint.

For suggestions as to orchard and garden, see Horticultural Department.

Turkey, Egypt and Greece at the Great Exhibition.

A single step carries us all the way from the Arctic Sea and the vast wilds that border thereon to the seas which lie within the tropics and those lands which tens of centuries ago were made historic by the children of the sun! First comes

THE OTTOMAN EMPIRE.

A single glance is sufficient to remind us of the many lines of latitude we have crossed at this one gigantic stride. A moment ago we were among the furs and Arctic cereals of grand old Russia, Sweden and Norway; now we tread a court the fit representatives of whose industry are the olive, the fig, the citron and pomegranite, with silks and carpets and tapestries, made yet more beautiful by the brilliant dyes so suited to this southern clime.

Covering an area of nearly 200,000 square miles, portions of which lie within Europe, Asia and Africa, and inhabited by some 40,000,000 of most strange and diverse peoples, whose history seems coeval with the world, Turkey is certainly one of the most interesting of all the nations of the earth.

The products of her agriculture here displayed so tastefully and in such profusion, are proof of the large capacity of her climate and soil, although the accounts of the condition of that art give evidence that but very little progress has been made since three thousand years ago. The specimens of maize, wheat, rye, barley, cotton, rice, &c., together with the fine collection of garden products and preserved fruits,, such as raisins, figs, fig paste, olives, and currants, are good.

The manufactures are chiefly confined to silk, red cloth, goat skin, morocco of superior quality, and articles made thereof, shawls, carpets, embroideries, saddlery of exquisite workmanship, fire arms, utensils of various sorts, swords of Damascus steel, dye stuffs, attar of roses, olive oil, wax, smoking pipes.

Altogether, the Turkish court does high credit to the Sublime Porte, and proves beyond a question that the spirit of progress, though long delayed and hindered, is beginning to do its beneficent work among this remarkable people.

By the staircase we ascend to the court of the Viceroyalty of

EGYPT—

Land of the mysterious Nile and of the Pyramids, cradle of the arts and sciences! At the first glance we are carried back to nearly four thousand years ago, when the Pharaohs held sway over the most enlightened nation of the whole earth. The entrance thereunto of the children of Abraham, the centuries of servitude of their multiplied posterity, the exodus under Moses, the conquest by Persia, the reigns of the Ptolemies, the wars successively waged by the Romans, the Arabs and the Turks,—all these acts in the great drama of her history pass in review before us.

If we inspect this court more narrowly, we hall find, first some interesting specimens of Egyptian wheat and other cereal grains; and secondly, several beautiful glass cases filled with manufactured articles, such as fire arms, swords, and other warlike weapons; magnificent specimens of saddlery, robes of silk exquisitely embroidered and ornamented with silver and gold and precious stones, beautiful embroideries, &c.; and finally, books and printed documents in the Coptic and other languages in use in that country. A beautiful and most elegant court, prophetic of a better day for a once glorious but long benighted nation.

After ages of darkness and stagnation, Egypt is again awake. The spirit of progress has been infused into the dead forms of her social institutions and her industry, and it is not impossible that she may yet again become a bright and shining light among the nations. The fact that she is here represented not only by this brilliant display of some of her works of art and the products of her industry, but also by the Grand Viceroy himself, is evidence of a new life and ground for the hope we express. Railroads, steamships, telegraphs—wherever these are introduced the other essentials to prosperity and progress are likely soon to follow. Twice I have met the Pacha since the opening of the Exhibition, and each time have found him in enthusiastic discourse upon the wonderful inventions and other improvements of the present age. Machinery especially delights him, and since his coming to London he has ordered of manufacturers here represented some of the most magnificent railroad locomotives ever yet constructed.

GREECE

Also, is here. Let us descend the staircase and enter the court. We shall find samples of wheat, barley, Indian corn, raisins, figs, olives, preserved fruits and spices, garden seeds, specimens of raw silk, flax and cotton, together with many interesting articles of wearing apparel, and other manufactures. A very little court, illustrative of what Greece is to-day, and a sad reminder of the glorious Greece of history.

As we enter, let us uncover our heads in honor of her heroes, and of those splendid achievments in science, literature and art by which, in the centuries long past, she did crown the human race with imperishable glory.

Greeks are here; but their language is not the same fine and classic tongue in which the heroic songs of Homer, the great father of epic poetry, the sublime teachings of Plato and Socrates, the science of Aristotle, and the matchless eloquence of Demosthenes and Pericles, were made immortal. Alas, that such should seem to be the inevitable fate of every nation, however grand and glorious its achievments! And yet possibly it is only a *seeming*.

There may yet come a time in the development of the race, when nations will have so learned the art of self-preservation as to be able to guard against and avoid those destructive influences which tend to their overthrow. If we believe in the eternal progress of man, why may we not also believe in the possible uninterrupted progress of a nation?

Planting Sorghum Seed.—A Critique upon the Recommendation of the Sorghum Convention.

ED. FARMER:—I am sorry I could not attend the Sorghum Convention at Madison, as I had fully intended doing; but you know

"The best laid schemes o' mice and men
Gang aft agiee,"

and I was forced by circumstances to stay at home; but as I disagree with the Convention in the second resolution, concerning the time and manner of planting the seed, I beg leave, with all due respect, to lay before you the experiments and the train of reasoning which lead me to differ from the conclusions come to by the Convention.

In the first place, the native country of the Sorghum is in, or, at any rate, not far from the tropics. Consequently the soil will require a greater amount of heat to cause a quick germination of the seed than we can ever expect to have during the spring months in any part of Wisconsin. You know, Mr. Editor, there are various seeds whose shells are so hard that they require to lie in the ground a whole year before they burst and commence to grow;—for instance, the seeds of the locust tree,—but that can be remedied by simply scalding the seeds with boiling water before planting, when they will spring up within two or three weeks, and make from one to four feet of wood the first season. Now, although the outer shell of the Sorghum seed is tender when compared with the seed of the locust tree, still it has a shell which requires some considerable time to lie in the moist ground before it admits water enough to swell the kernel and burst the shell so as to allow the sprout to shoot.

Now, in early planting I admit there is moisture enough in the soil to cause the seed to swell and burst its outer covering, but there is not warmth enough in the ground to put life into the seed and cause it to germinate freely; and, as likely as not, before the ground is warm enough, a great number of the seeds have perished and never grow at all. In the mean time the weeds common to this climate, that don't require the same amount of heat, have sprung up freely and covered the ground so as to make the first hoeing of the sorghum patch a very serious matter indeed.

Now, how shall we remedy these evils and make the cultivation of the sugar cane almost a certain success? A neighbor of mine, who has had a good deal of experience in farming, and who does the most of his own thinking, had a piece of ground he wanted to plant to sugar cane, and considering the season too far advanced to get a crop in the ordinary method, he thought he would force forward the seed by artificial means, so as to make up for lost time. To accomplish this he put the seed into a tin cup and covered it with water, scalding hot, and let it stand so for ten or twelve hours; he then poured off the water and covered up the seed to prevent evaporation; then put the cup into a tin milk-pan which he kept constantly supplied with a quantity of warm water, and which kept the moist seed in the cup always in a genial state of warmth, so that it sprouted to the length of one-eighth to one-fourth of an inch in three or four days; when, having his land newly plowed, he had it carefully planted, and in three days from that time every row could be distinctly seen by the young plants pointing above the ground. During all the summer it was the most uni-

form and best piece of cane in all this section of country.

Now sir, by following that plan, or some modification of it, and delaying the planting until the ground has acquired some degree of natural heat, I think all the advantages of early planting may be obtained without any of its drawbacks. I intend risking it this spring, and will faithfully report progress as the season advances. G. YULE.

OKEE, WIS.

Field Beans.

The cultivation of the bean is now extensively practiced in almost every State in the Union, but with varying success. Few crops are more lucrative. On soils properly constituted it rarely fails, the only enemy to which it is exposed being the cut worm, among insects, and the only emergency of a climacteric nature from which it severely or fatally suffers, being cold or frost. There are numerous varieties of the bean, some of which are of low stature, and others that are climbers, requiring support, and producing their fruit in clusters, as is sometimes the habit of the pea, to which vegetable it is more nearly assimilated than to any other leguminous plant.

The soil best adapted to the cultivation of the field bean is a light loam, having a preponderance of sandy or vitreous earth, with the admixture of vegetable matter, and a free descent. A tenacious subsoil is always pernicious in its effect upon this crop. Thorough cultivation is highly essential to the complete development of every variety of the bean, from the largest to the most diminutive; but old and vigorous animal manures should never be applied, or if applied, only in small quantities. Unless the soil is naturally calcareous, lime in its caustic st te, as well as wood ashes, leached or unleached, should be applied These articles supply an important principle to the soil, besides acting as a stimulant to the crop.

By many, the drill system is now preferred in the field cultivation of the bean. The land is first thoroughly worked and reduced to the finest possible tillage by plowing and harrowing. The seed is then put in by a seed-sower which deposits the same evenly, and at the same time covers and rolls the ground Eighteen inches is as near together as the rows should be placed; in the rows the distance between the plants or hills—one plant constituting a hill—ought to be if the ground is in fair condition, from three to four inches.

I have generally, of late, experienced very important advantages to result from the liberal use of poudrette and other fertilizers in the cultivation of the bean. Their application is not only attended with greatly less labor and expense than necessarily attends the use of other manurial substances of greater bulk and weight, but they act more immediately and put forth their powers at that stage of development when the crop more emphatically demands sustenance and support.

My method of applying them is to place them in the drills by hand, and spread over them a slight quantity of soil, to prevent a too close contact with the seed, the vitality of which might thereby be impaired, if not destroyed. In the after cultivation care is had to keep down all spurious growth both between and in the rows. This may be accomplished by means of a common contracting and expanding cultivator, graduated to the space between the rows; the weeds in the rows it will be necessary to remove by hand labor. A few dressings of gypsum and unleached wood ashes during the season, and particularly at or near the period of flowering, will be of equal importance.

As a food for sheep the bean is unrivalled. Like all legumes it is affluent in farinaceous matter, and consequently exerts a healthy and vigorous effect upon the system Ewes for a week or so before and after dropping their lambs should have a gill or so a day. But little salt should be given them during this period.

Beans that have become mouldy answer well for this use. They may be freed from the rancid and disagreeable taste arising from mouldiness, by pouring over them a small quantity of boiling water in which a spoonful of pearlash or saleratus has been dissolved. The softening of the bean does not injure it or render it unpalatable to the sheep, but, on the contrary, seems to augment their fondness for it. —*Germantown Telegraph.*

Butter Making.

One of the best dairy farmers in Massachusetts has the following rules, the observance of which, he says, can only ensure the making of good butter:

1. Keep the very best description of cows for your dairy stock.

2. Feed them on the best pastures and hay, (when confined to the cattle barns) using no roots in feeding with the exception of carrots, as all others impart a disagreeable taste to the milk and butter.

3 Observe the strictest cleanliness in the dairy rooms, and in respect to the dishes and machinery of creaming and churning the milk and working the butter.

4. The milk room must be kept always at an even temperature, not less than 52° nor more than 55°.

5. Use only half an ounce of salt to a pound of butter.

Another authority says that the largest

quantity of cream rises, and consequently the greatest quantity of butter is made, when the milk is one and a quarter inches in depth in hot weather, and an inch and a half in cold weather—seven or eight quart pans thus containing but two and a half quarts for the first named depth, and three quarts for the latter. —*Boston Journal.*

The Sugar Beet.

Can we produce our own sugar? This question is being answered, in part, by the success which has attended the cultivation of Sorghum, and there is good reason to hope that it will be more satisfactorily answered still, as the practicability of economically producing sorghum sugar and molasses comes to be fully settled. So far, so good; but may it not also be well enough for us to enquire whether the sugar beet may not also be advantageously cultivated for the same purpose.

In France, and in some other countries of Europe, the production of sugar from this source constitutes a very important branch of industry; the amount produced in France alone being several millions of dollars per annum. In our travels in that country, in 1862, we saw thousands of acres of the beets growing, and took some pains to enquire into the economy of their cultivation and working up. The result of those enquiries was a conviction that there is scarcely any crop more profitably grown in that country.

We are not aware that the cultivation of the sugar beet has received any very considerable attention in this State, but the nature of the plant, together with the success which has attended experiments with it in Ohio and Illinois, induce the belief that it might be successfully introduced in Wisconsin.

A citizen of Waupaca county, who has been familiar with the culture of the beet and the manufacture of the sugar in Switzerland, and who has satisfied himself of the adaptation of the beet to our climate, is very sanguine on the subject and urges the importance of instituting experiments in relation thereto. Prof. Mott, of Ohio, a chemist who has given much attention to this subject, and who is entirely familiar with the methods of growth and manufacture in European countries, has been making experiments at Columbus, which seem to be highly satisfactory, and which have been elaborately reported in the last Report of the State Board of Agriculture. We shall quote from this Report in subsequent numbers of the FARMER; our present intention being simply to make the suggestion, so that parties who wish may procure the seed and make the experiment on a small scale. The seed can probably be had on application to Prof. Mott, Columbus, Ohio, and the methods of planting, cultivation and manufacture we will give in time for use.

Birds and the Destruction of Insects.

How extensive are the injuries to vegetation caused by insects, few but those engaged in the cultivation of the soil can fully know. There is not a farmer or gardener who has not to tell of flowers destroyed, trees blighted, or crops ravaged by some of the varieties of insects. It is obvious that this must be more and more the case unless some efforts are made to destroy the destroyers. With the progress of civilization lands have been cleared of the wild vegetation which formerly covered them and which supplied an enormous number of insects with food. As a natural consequence, they are driven to prey on cultivated plants, and the cultivator suffers proportionately. Unfortunately, gross ignorance of natural history has helped to increase insects. A ruthless war has been waged upon those animals which obtain a large part of their sustenance from the insects they devour. It is not very long since our attention was called by certain French savans to the folly of destroying small birds. It was shown that the food of these birds was largely insects and the eggs of insects, and that the increase of these minute pests was so rapid and so great that, unless assisted by the birds, we should have small chance of keeping them under. The subject was discussed in the newspapers at the time, but even yet there are sparrow clubs in some agricultural districts—clubs which offer prizes to the individual who shall at a given time bring up the largest number of heads of slain birds. It may be safely said that this is a description of suicide. To kill the birds which eat insects is to destroy our best friends; and it is much cheaper to allow them to take a little of the corn grown as wages for the good work they do for us, than by killing them to assist in the multiplication of insects which have no mercy on the vegetation they feed upon, but destroy it literally, root, stem, and branch.—*English Paper.*

How to raise Corn.

MR. EDITOR:—I have had it in my mind for some time to give the readers of the FARMER some of my experience in raising corn.

In the first place, the land (if stubble) should be plowed at a considerable depth, say ten or twelve inches. Then roll, and plant the last of April or first of May, according to the weather. I have found that early planted corn is more likely to do well than that which is planted late. I plant with Woodworth's patent corn-planter, altered a little to suit our prairie soil, which plants it in drills. I usually plant about six quarts to the acre, which is about double what I want to stand, after it is up; and when the corn just begins to come up I take a Scotch harrow and give it a thorough harrowing crosswise the rows, which knocks the young weeds *endways*. You would be surprised to see how little corn it tears up. I then wait a few days, and then take my grain drill (the middle tooth out) and fix the teeth so that they will run as near the rows as possible without covering the corn. I then get on and ride, which is much easier than trudging on foot after an old fashioned cultivator. I then go through with the hoe and brush out what few weeds may chance to be left, and be sure and thin the corn so that there will not be more than three or four stalks every four feet, if dent corn; but if small Yankee corn it might stand thicker.

When the corn gets to be a foot high or more, I use a one-horse cultivator—sometimes a double shovel plow or any other plow of the like construction. In this manner I have usually raised from 80 to 100 bushels of ears to the acre, with less work, by one-third, at least, than by the old method of planting in the hill. If I plant greensward, I prefer not to plow it until the last of May or first of June, and plow shallow,—say three or four inches—and then plant some of the early varieties of corn; though dent will usually do well if the season is favorable.

JAMES H. SANFORD.

HEART PRAIRIE, Wis.

Muck, Ashes and Lime on Grass Seeds.

The *Rural New Yorker*, in answer to a correspondent making inquiries as to the sowing of lime, ashes and muck on grass seeds, says:

"Lime works a great change in muck, correcting the acidity and hastening decomposition. In fact, muck is about the only material that lime can be composted with to advantage. To put lime with stable manure, as is sometimes done, is a bad practice, often resulting in a loss of one-half of the value of the manure. Unleached ashes should never be composted with manure. If the muck is got out in the winter, it may be mixed with the lime as fast as procured, and applied to the land in the spring; or, it is about as well, and less trouble, to spread it as fast as taken out, and apply the dressing of lime and ashes early in the spring. About the best crop of hay we ever saw was obtained by a composted dressing of lime, ashes and muck, in the autumn, and a light coat of well rotted manure in the spring, brushed in. This, if anything, will renew an old pasture, though, if very mossy, it is best to give it a good harrowing before brushing. It is somewhat difficult to destroy sorrel without breaking up and thorough culture. Enriching the soil, liming, and deep cultivation, will soon subdue it.

Top Dressing.

As the haying progresses let the subject of top dressing be kept in mind. Grass lands that begin to fail, and yet have a plenty of grass, may be made almost as good as new by the application of compost. It will wake into newness of life the old roots, and cause new ones to form. It will wake up the slumbering energies of the soil. It is like oats to the old work horse. It gives him vigor. He must have them or falter in the harness. The soil must be fed or it makes but a feeble effort to respond to the demands of the farmer. Top dress those fields that just begin to fail. It will save plowing them so soon. Plowing is expensive. It takes muscle, both of man and beast. It should be avoided when another system pays better. The shortest route to a destined place is preferable, other things being equal. The shortest cut to a good grass crop is to feed it well all the time. Being the first born of the family, it is entitled to extra care and attention. It being the corner stone of the whole fabric, it should be prized accordingly, and be kept continually in remembrance, and never suffered to become a matter of secondary consideration. This is the case with many persons at the present time. The corn and the potatoes must have the lion's share of the manure. The grass must take what is left, and a scanty pittance it often is. Now then what shall be done?

Let every farmer begin in the spring to save. His first care should be for the summer

droppings of his cattle. If they are not stabled, they should be put into a good yard, or into the barn cellar—the latter is the better place, if it can be well ventilated—with a good supply of loam or muck under them. Once every week the whole should be plowed over. No better plan can possibly be devised for the manufacture of compost, than a barn cellar, with doors and windows so arranged that a good draught of air may pass through at all times. It is very comfortable for cattle and a large amount of saltpetre will be deposited, rendering the manure much more valuable than it would be if out of doors. By frequent plowing, or by the services of hogs' noses, the mass will be well mixed, and the manure completely divided, which is of much importance.

Before the fall rains, this compost should be evenly spread upon the surface. The better way is to spread it from the cart. Some apply a brush harrow and brush it in.—*Jour. of Agriculture.*

Why Seeds Fail—Practical Hints.

Frequent failures are made in cultivation which are unjustly charged to the seedsmen. Seeds are sown, they do not come up, and they are set down as old and imperfect. While such seeds are doubtless sold by some, our experience is that respectable seedsmen generally send out reliable seeds, and that the want of success is oftener the fault of the sower. Seeds after being sown differ as to the power of resisting decay, if the circumstances are unfavorable to their immediate germination.

Three conditions are necessary to the growth of all seeds, viz: air, moisture, and a sufficient temperature. Any one of these failing the seeds will not grow. The amount of heat required for germination varies greatly with different seeds; those of the common chickweed will start at a temperature just above freezing, while those of some tropical plants require 75° or 80°. The seeds of the plants commonly cultivated germinate at a temperature of 50° to 60°. Moisture is required not only to soften the seed coat, but to enable the germ to grow, and too much or too little is equally fatal to success. If the soil is too dry the seeds remain unchanged; and if an excess of moisture is present, the seeds, if delicate, will decay. In well drained soils the proper amount of water is held by capillary attraction. The third requisite, air, is always present in recently worked soil.

All the conditions being favorable, there is a great difference in the time that seeds require for germination. Placed under similar circumstances, it has been found that wheat and millet germinate in one day, beans, radishes and turnips in two, and lettuce in four days, while melons and cucumbers require five or six, and parsley thirty or forty days. The seeds of some trees and shrubs remain in the ground one and even two years before they germinate.

The common causes of failure with good seeds are: too deep or too early sowing, and excess of moisture. When small seeds are planted too deeply, the vitality of the germ is exhausted before it can reach the light and air necessary to its growth; such seeds should be barely covered with soil, and if there is danger of the surface becoming too dry, it should be shaded. Very small seeds may be sprinkled on nicely prepared soil, and then lay a board on the surface until they start. When sowing is done too early, the ground is too cold, and many seeds rot before it becomes of a proper temperature to cause germination. Too much moisture in the soil excludes the necessary air, and thus one of the requisites being wanting, the seeds decay.—*Ex.*

STOCK REGISTER.

Lambs—Treatment, Diseases, Preventives.

The lambing season just beginning, it is necessary, in order to be successful in rearing them, that the attention of the farmer be individually given. One hundred and fifty-two days after the ram has been admitted to the flock in the fall, the lambing season begins. The treatment of the ewe before and at this time is one of importance, for upon this depends the health of the lamb. Well kept ewes require no particular food before lambing, save a few roots, for from their food they have gained a sufficient amount of nourishment for their lamb at birth. If having been poorly kept, milk-producing food is best for them. Feeding too freely of this kind of food is injurious to both ewe and lamb. In the ewe, it tends to increase inflammation and often makes the food too nutritious for the weak organs of the lamb. The ewe at this time should be carefully caught, and the wool and hair removed with the shears from the inside of the thighs, under the tail, and around the udder. This treatment prevents the lamb from getting the dirt and filth generally accumulated there, which often destroys its life.

If a ewe has lost her lamb, one that is disowned may be successfully placed upon her, by taking the skin of the dead lamb and wrapping it around the one disowned. This

imposition will soon create in her an affection as strong for the strange lamb as for the one she gave birth to, and she will nourish it as if her own. If the flock is large the young ewes should be selected and kept in a separate pasture, for they require double attention. There is a strong tendency for them to leave their lambs. Frequently from this cause the lamb dies. If the young ewe be held a few times to allow her lamb to suck, she will soon become attached to it.

Lambs often die from what is termed scouring, which is often caused by a diseased teat, or from having the ewe changed from poor pasturage to luxuriant. Great care should be taken in this particular, for so great a change, instead of being a benefit, creates a degree of inflammatory fever which no means will destroy, and creates in the lamb a diarrhœa which cannot be checked. The lamb thus affected is called a *Gall-lamb*.. The liver being the seat of inflammation, a great amount of gall is found in the intestines. This disease is very fatal, and can only be cured in its very earliest stages, by bleeding the lamb a little and giving it some Epsom salts with a small portion of ginger. Its presence may be easily found out by the yellow tinge of the skin.

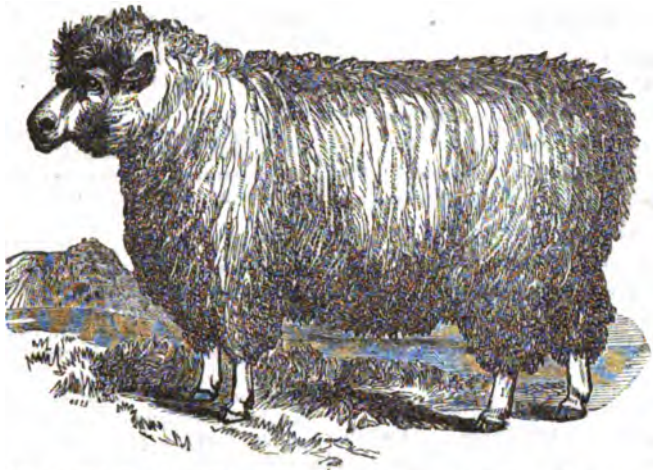
At the time the lamb begins grazing, the condition of the stomach being somewhat deranged, gives rise to another form of disease, not unfrequently called constipation. Its cause may be traced to an increased flow of milk caused by rich and nutritious food. The milk on entering the stomach of the lamb is first converted by the gastric juice into a curd, that portion of it remaining liquid is changed into whey. If the stomach of the lamb is not in a healthy state this curd accumulates to a great extent, which after a time becomes extremely hard, and the lamb labors under what appears to be a severe purging. This hardening or coagulation has often been observed to weigh three or four pounds. This disease may be suspected when the lamb, becoming stupid, heaves at the flanks and has its belly very much distended, the lamb may be either costive or having a discharge of whey-like fæces. In order to effect a cure it is only necessary to dissolve the hardened mass of curd. This may be accomplished by mixing a small quantity of magnesia with thin gruel, a small portion of Epsom salts and a little ginger to agitate the stomach to more powerful contraction

Costiveness and fever are produced by similar causes, and in each case a cure may be effected by giving about one-half ounce of salts every six hours.

There is also an importance attached to castrating and docking lambs in regard to the time when it should be done. It perhaps is most successfully performed when the lamb is a few days old and to all appearances healthy. There are often cases when the operation of docking is quite necessary, as in cases of fever or gall-lamb. These operations should be performed when the weather is cool, as it is not well for the lamb when very warm, as there is too great tendency to inflammation.

In the selection of lambs for stock rams great care should be exercised. As it is usually done when the lamb has but few marks of value, reference should be made to sire and dam. Each should have compact fleeces, well built frames, and short legs. Attention should be given to the head. As compared with its size it should be small, and not wide between the eyes, but thin and short, yet not too much so, for it indicates delicacy of constitution. If the head be small there is less danger of trouble at the lambing season, which often proves of great importance. Quite as much care should be exercised in the selection of breeding ewes. Every loose, hairy fleeced one should be given to the market, while those of compact form and fleece should by all means be selected. By this attention the flock may be increased in value a very great per cent. every year, and will in a short time be of great value. F. M. G.

MADISON.



Some of the British Breeds of Sheep.

NO. III.—THE COTSWOLDS.

The Cotswolds are also popular in England. Their origin is somewhat obscure, owing to the very long period during which they have been a leading breed. The name seems to have been compounded of "cots"—from the great number of cots or folds observable in Gloucestershire, to which district they more especially belong—and of the "wolds," or hills on which, from time immemorial, they have been accustomed to range.

Their leading characteristics, are comeliness of form, remarkably heavy hind quarters, long, close and heavy fleece, with a prominent tuft on the forehead.

In answer to the question, "What is a Cotswold sheep?" a competent writer says: "We answer, a bold and commanding animal, with finely arched neck, broad, straight back, arched ribs, and length of quarter, carrying an enormous weight of carcass upon clean legs."

The wool of the Cotswold is 6 to 8 inches in length, of good quality, soft and of good color, but rather coarse.

The mutton is fair and of good weight—the quarters of a two years old animal, fattened, weighing 20 to 30 pounds.

Having always had to contend with a pretty severe climate, they are hardy and thrive well on a rough diet, although they are well adapted to rich pastures. The ewes are prolific and excellent nurses.

The above illustration of a Cotswold ewe is from Mr. Klippart's essay in the Report of the Ohio Board of Agriculture, and very truthfully represents this breed of sheep, as we have seen them upon their native hills about Gloucester.

Keeping Sheep.

I have five sheep, two long and three short wooled, which I can keep fat on one and one-half quarts of oats, and about four pounds of hay per day.

I find a bran mash is the best and cheapest feed for breeding ewes; mix a little oats in it. I have fed mostly hay and oats, and think it is the cheapest way I ever kept sheep fat.

J. H. GOULD.

STOUGHTON, WIS.

CURE FOR BOTTS.—I send you a sure cure for Botts in horses, which you may publish if you think it will be of benefit to horse-owners. It is a sure cure for that complaint which has heretofore been hard to cure.

Take one ounce of sulphuric ether, and a half pint of warm water; put into a bottle and drench the horse with it.

JOS. K. THOMAS.

MILWAUKEE.

Raising Sheep.

ED. FARMER:—I will give your journal the credit of first inducing me to try the wool growing business. I find it the only business that I can make pay upon my lands in this State One year ago last July I sheared 3,100 pounds of wool from 700 Spanish Merino sheep. One year ago this month I took my wool to Philadelphia and sold it for 73½ cents per pound, amounting to $2,218.

This year I have sheared 1400 sheep, and now I have 7,000 pounds of wool, (5 lbs. per head) ready to take to market, and I expect to get 80 cents per pound in Philadelphia.

I am now wintering 1600 sheep, and I would say, from my experience, that rye and timothy hay is the best feed for wintering sheep, especially for late lambs. Oats are not sufficiently hearty, and corn will frequently kill lambs by scouring them.

My sheep are of great service in clearing my lands from brush, and I think effectually pay for their pasturage through the summer months. IRA S. HASELTINE.

HIGHLAND CENTRE, Wis.

RECIPE FOR SWELLED LIMBS IN HORSES.—Bleed the horse on each side of the hoof. If one bleeding does not give relief, repeat it. This is an infallible rule. N. DODGE.

WINDSOR, Wis.

Poll Evil in the Horse.

Poll evil consists of a deep abscess ending in an ulcerous sore, which has numerous sinuses. It is most generally in the forward part of the neck, near the top of the head, a part specially liable to injury, particularly in farm horses. It is invariably the result of external injury. In some cases it is produced by the pressure of the halter upon the seat of the disease, this pressure being an attempt of the horse to relieve himself from the unpleasant position consequent upon the inequalities of the floor of the stable. Pressure stops circulation; numbness and itching are the first results. The horse tries to relieve himself by rubbing against the stall, rack or manger. This rubbing frequently produces bruises of the flesh, and a deep seated abscess is formed.

Again, poll evil is often produced by low stable doors, which compel the horse to stoop when entering or going out. A sudden elevation of the head, whether from fear or naturally, brings the upper part of the head with a crash against the beam of the doorway. A bruise is the consequence and poll evil the result.

The application of the butt end of the whip so frequently and shamefully practiced, is another cause. In fact, this disease may always be traced to some such cause as we have named.

The first symptom is protrusion of the nose, as a means of relief from the intense pain caused by the contraction of the bruised muscles while eating. The animal stands at a distance from the manger in feeding, so as to bend the head as little as possible. A longer time is required to empty the manger. It struggles violently when the collar is forced over the diseased part. In a few weeks the swelling becomes prominent, if the injury is near the surface. In deep seated cases the swelling never becomes prominent.

Pressure with the finger gently applied at first and gradually increased, will determine its character. If superficial, the horse will wince under it; if deep seated, greater force will be required to produce uneasiness.

When deep seated, the disease is more difficult to manage, as well as harder to detect.

THE BEE-KEEPER.

Mr. Shaw on Beehives Again.

EDITOR FARMER:—It appears from the numerous comments upon my article in the January No. that I ignore the renewing or the comb-removing principle, while I really consider it a great advance in the science of bee keeping. The present popular arrangement I think can be improved, however, both in utility and convenience, and conform nearer to the known habits of the bee.

If you have received and think proper to publish my article of February, your readers can see some more of my objections to the present style of movable frames, to which I will here add:—The honey board is superfluous, and the shallow chamber the bees will fill with comb, if let alone but a few days, showing that they do not want that vacancy, and that it is, therefore, not in accordance with their natural habits.

In an article in the *Country Gentleman*, Feb. 4, 1864, by R. Dart, Ripon, one of the first apiarians in the State, he says: "I am yet undecided what is the best hive for us to use, but think the slat hive is, if we can have patience to guide each frame and get our combs straight." To which might be added, "and have the faculty of *coming the Rarey* on the bees." You are aware that the proportion of men who have the requisite patience and faculty for handling them is very small.

Now to recommend or advise people to buy an article which they have no faculty or patience to use, is wrong, besides fattening patent right vendors on honest people's money. Yet the "straight-jacket" appearance of Mr. Brier's article would have you exclude all such information from your journal, virtually saying there is no success otherwise than with the movable frames, and the man that can't do as well with them as *he* has done, ought to be duped. It is marvellously strange that the bees of this continent survived until Mr. Brier's day!

My object is not to render "shot for shot," or comment ironically upon any one's experience, but to understand the natural habits of the honey bee, and to provide for his wants.

Any one who thinks the present movable frame hives are "the hive for the million," would do well to take a trip through the country and call on all that keep bees, making inquiries, examinations, and keeping a journal of the same. I think his report would be that about two per cent. of the bee-men can keep bees successfully with the best movable frame hive, now before the public, which is Langstroth's.

Bees are not doing well in this vicinity, many whole stocks dying, probably from disease, as they leave an abundance of food—while others, with the same care, are doing very well. The last year's stocks seem to be more healthy than the older ones.

J. A. SHAW.

DARTFORD, WIS.

THE POULTERER.

Food of the Chicks previous to Weaning.

As to the food of the young brood, let them have anything that is not absolutely poisonous. Sloppy matters are better avoided till the little things are old enough to eat a few grains of good wheat, of the best sample, which will then not be thrown away upon them. Meat and insect diet are almost necessary; but raw vegetables chopped small, or Indian meal dough, containing no salt, so grateful to young turkeys, are *caviare* to young chickens But whatever be the bill of fare, the meals must be given at short intervals; as much as they can swallow, as often as they can eat. The reader will please to remember that when he came into the world, all that was expected of him was to grow and be good natured. He had not to provide his long clothes out of his mother's milk, nor to elaborate pinafores from a basin of soaked biscuit; but for poor little chickens, the only known baby linen warehouse is situated in their own stomachs. And with all their industry, they are only half clad, till flesh and blood stop growing for awhile and allow down and feathers to overtake them.

The period at which they are left to shift for themselves depends upon the disposition of the hen. Some will continue their attentions to their chicks till they are nearly full grown, others will cast them off much earlier. In the latter case, it may be as well to keep an eye upon them for a few days, till they have established themselves as independent members of the gallinaceous community. For chickens, in this half grown state, are at the most critical period of their lives. They are now much more liable to disease than when they were apparently tender little weaklings crowded under their mother's wings. It is just before arriving at this point of growth, that artificially hatched-chickens are so sure to fail, whether hot air, hot water, or sheepskin, be the substitute for the mother's care. —*American Poultry Yard.*

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

Hardy Apples adapted to Wisconsin.

EDITOR FARMER:—The inquiry was made some time since, through your paper, for a list of hardy apples adapted to general cultivation in Wisconsin. I have waited, hoping to hear from some of the many orchardists in the State, the results of long continued experiments in fruit growing, something that would be more safe to follow than the advice of tree growers, who generally recommend what they have to sell. In the November No. of the FARMER is a list of varieties classed as "extra hardy." Included in that list are some sorts that need the best locations in order to prove of any value, while others that have proved the best and hardiest are left out.

What is meant by the term "extra hardy?" And what are those about to set orchards to understand by it? Is it to include all those varieties safe to plant upon a good location and good soil, or only such as have proved most valuable upon a soil and location unfavorable for orchard purposes? If the latter, then this list of 20 varieties should be considerably reduced.

In the January No., the list there recommended for one of our northern counties includes the Sweet June, Rawles' Janet, and other half hardy sorts, while the Fameuse is left out, a variety which originated in Canada and flourishes well at Montreal, two degrees north of this, and which in tree and fruit has no equal for Wisconsin cultivation. The Drap d'Or is not included in any of the lists—a splendid fall fruit, one that will thrive well where nine-tenths of those called hardy would be killed. It makes a poor nursery tree, which is probably the reason why it was not included. The Yellow Belleflower, a hardy orchard tree, with age a constant and abundant bearer, was left out, probably for the same reason. Now what we want is a list properly classified into extra hardy, hardy, half hardy, and tender, so that every one planting an orchard may have such a guide as will enable him to choose varieties adapted to the soil and location upon which they are to be set.

In the January No., in answer to the call for a list of pears known to be hardy, the writer enumerates ten varieties, which he says are "eminently hardy and valuable for Northwestern culture." If we are to understand the term "eminently hardy," as synonymous with "known to be hardy," the list is altogether too large, some in that list having proved eminently tender, and even the hardiest of them have not all escaped injury upon the best locations.

We have had a series of mild winters through which, on good locations, the peach has passed uninjured, but the first ten days of January will correct somewhat our wanderings on the subject of pear culture in Wisconsin. Following this list of ten sorts, the Bartlett is recommended, trained low, with *winter protection from the sun!*

I have been unwilling to give up this excellent variety, though it has injured with me nearly every winter. Last spring I gave it another trial, resolved that it should be the last, provided it showed injury by the winter. The first week of January proved too severe for it. I examined it immediately after, and found it killed and blackened to the snow line. It is possible that "winter protection from the sun" might have saved it, though the sun appeared to have very little influence on this mundane sphere during those terrible days. Now, Mr. Editor, since the mission of the sun is to do good, we should have the very best of evidence before charging him with evil, and I protest against many of the charges of tree and fruit growers who have a favorite theory to establish. We are told that the injury to our fruit trees is mainly done in the spring, and that the sun is the principal cause. That trees are sometimes injured by the heat of the sun, followed by severe freezing, I do not deny; but that this was the cause of that almost universal wreck following the hard winters of 1856–57, I do most certainly doubt.

We are situated near the northern limit of the fruit producing region, and are visited occasionally with one of those winters common to the region beyond that limit. The result is that many of our trees are destroyed, especially the finer fruits.

Now, so far as I have been able to observe, our springs are not very unlike, nor has any one yet pointed out the difference peculiar to those following hard winters, or shown why they prove more destructive than those succeeding milder ones; if such was the fact, let us have something more than mere assertion. There are many causes operating against the fruit grower in Wisconsin, but the great and principal one is this: *the very severe and long protracted cold of some of our winters.*

Already the injury by the severe cold of the first ten days of January is visible on many of our pear trees. A neighbor of mine who had nearly all those included in the list published as hardy, finds every one of them killed to the snow line, including those among the most hardy, the Flemish Beauty and the Onondaga.

There may be a belt of country bordering on the lake, where pears will uniformly do well, which may extend as far as the Lawton Blackberry belt, but that they will generally do well in the interior of the State, the experiments of the past do not prove. Still I would say to those who have a good soil and location, plant a few trees of the hardiest varieties only, and if you can grow the peach without protection, plant the Bartlett, by all means. A. G. T.

BARABOO, WIS.

Strawberry Culture.

EDITOR FARMER:—I have a few facts in strawberry growing which may interest some of your readers.

In the spring of 1862 I planted for my neighbor, Mr. John Hutchins, 1000 plants of Wilson's Albany. They occupied twenty-one square rods of ground, which was a deep, rich loam, rather sandy. Fearing that it was not rich enough, Mr. H. placed a large shovelful of hog manure under each plant, burying it about six inches deep. Good clean culture was given during the summer, and in winter the ground was well covered with straw.

The crop in 1863 amounted to 849 quarts, which were sold in Milwaukee for $120.12. Mr. H. did not keep an accurate account of the expenses of the crop, but it would be about as follows:

1000 plants	$5 00
Cost of cultivation	10 00
Cost of picking and marketing	20 00
Land rent	2 00
Total	$37 00

Leaving a nett profit of $83.12 from twenty-one rods of land, with plants in good condition for a crop the coming season.

The same spring I rented of Mr. H. one acre of land, it being in good fair condition for a corn crop, which I also planted to Wilson's, in rows three feet apart. I kept them free from weeds, mostly with horse and cultivator, it being my intention to grow a crop of berries at small expense, somewhat after the plan recommended by our Illinois brethren.

In autumn they were as fine a lot of plants as I ever saw. In winter I covered very lightly with straw, hoping for a good fall of snow to protect them. Well, the snow did not come, and the frequent freezing and thawing ruined all the foliage and many entire plants. In spring they started feebly, and the land not being deeply worked the drouth of June pinched them severely.

The whole crop amounted to $95. Cost of cultivation and land rent was $45, leaving a nett profit of $50. I make no charge for plants, as they were more than balanced by plants sold, and I only wish to report with reference to the fruit. I believe that $10 expended in covering the plants in winter, and $10 in subsoiling the land, would have made the nett profit $150 instead of $50. But had it been as favorable a season as the previous one, the covering and subsoiling would have done but little good, as the snow of the previous winter was ample covering, and we had plenty of moisture until after the strawberry season. In our climate, however, plentiful

supplies of snow or rain are hardly to be relied on when such easy and effectual remedies are at hand.

It would be quite natural to report my neighbor's good crop, and say nothing of my poor one; but the causes of his success and my failure are so apparent, that I write the whole for the benefit of those who feel inclined to grow their own berries. If any feel faint-hearted about planting, they will please notice that my crop, though a very poor one, was not quite a failure, but more profitable than most crops of wheat.

I cannot close without saying a word for another small fruit. I refer to the Doolittle Blackcap Raspberry. I have fruited it for two years past, and find it very hardy, productive and good. Following immediately after the strawberries, it is valuable to the market gardener, and not less so to those who grow it for their own use. J. S. STICKNEY.

WAUWATOSA, Wis.

White Japanese Muskmelon.

"The sweetest thin-skinned melon yet introduced; the seed came direct from Japan, and no lover of this fine fruit should be without some of this variety." So says J. Wesley Jones, of Chatham 4 Corners, Columbia Co., N. Y., of whose integrity we have so little doubt, that, without ever having seen it, we are prepared to accept his statement of its superior merit. See our list of new prizes on cover.

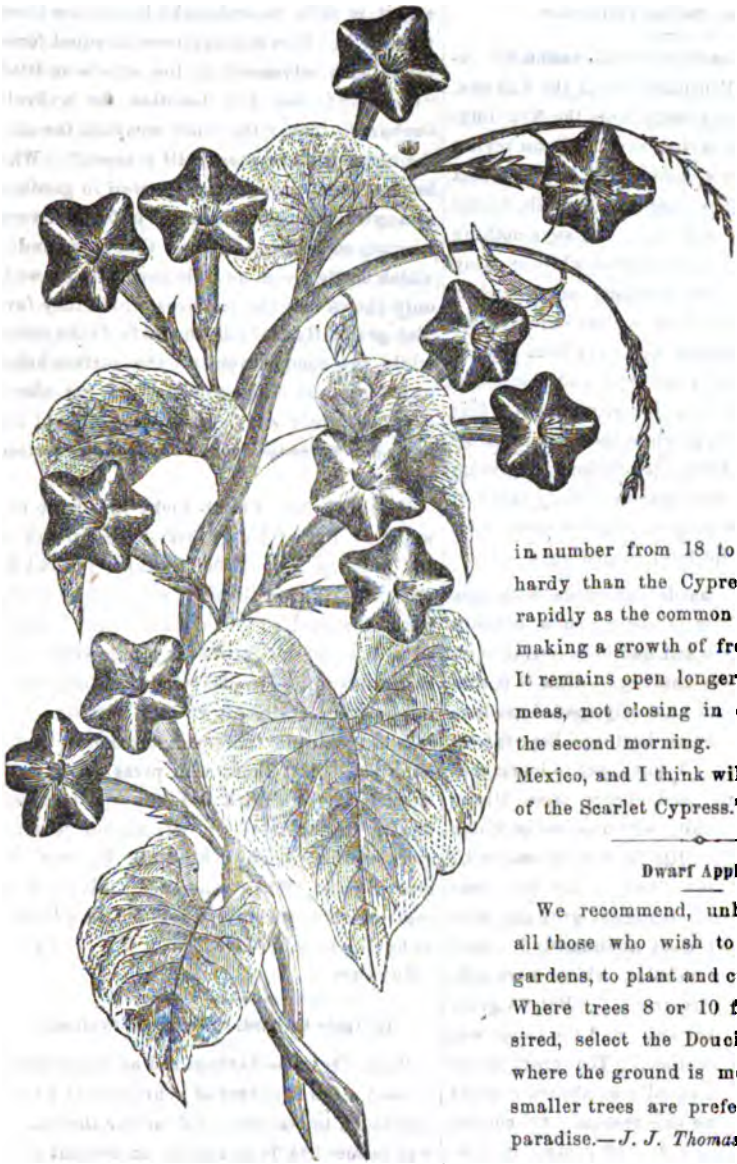
Fruits vs. Malaria.

The *Country Gentleman* says that residents in the Western States, and other regions where intermittents and similar diseases result from malaria, state that a regular supply of ripe home grown fruit is almost a sure preventive. Eat the fruit only when fully ripe, and eat only moderate quantities at a time, and little need be feared. The residents of such regions should, therefore, not omit the earliest opportunity for a supply. Plant many Currant bushes—for these are a most excellent and healthy fruit—very hardy, and if in abundance, will last through all the hottest part of the summer.

The Doolittle and Orange raspberries are profuse bearers—the former very hardy, the latter generally so, but should be laid down and covered with an inch or two of earth for winter. The Rochelle Blackberry, if pinched in when three or four feet high, (about midsummer) will bear abundantly, and prove hardier than if the canes run up without control. The Delaware, Clinton and Concord grapes are early and hardy, and will bear in two or three years from transplanting.

Dwarf Apples, on the Paradise and Doucin stock, will flourish in any locality, and begin to bear profusely in three or four years, and on the Paradise stock often in two years. Some varieties bear early on common stock; such, for example, as the Dyer, Lowell, Early Strawberry, Sops of Wine, Oldenburgh, Porter, Belmont, Jonathan, &c., but these will, of course, bear much sooner as dwarfs. The Bartlett, Washington, Julienne, Flemish Beauty, Beurre d'Amalis, Onondaga, Howell and Seckel pears produce early as standards, and the Louise Bonne of Jersey, as a dwarf. Houghton's Gooseberry grows with great vigor, is very hardy, and in two or three years affords almost solid masses of berries on the branches.

Such fruits as the above should be planted out on every new place, as indispensable to health, as well as to comfort and economy; and emigrants to new countries should take a supply wtth them, as the best medicine chest they can provide.



Star Ipomea.

"This flower," according to that enterprising and popular florist, J. Wesley Jones. to whom we are indebted for the above handsome illustration, "resembles in its bloom the Scarlet Cypress, but much brighter scarlet, and blooming more abundantly, producing two clusters of buds at the base of each leaf, in number from 18 to 24. It is more hardy than the Cypress, growing as rapidly as the common Morning Glory, making a growth of from 12 to 15 feet. It remains open longer than most Ipomeas, not closing in cool days until the second morning. It is a native of Mexico, and I think will take the place of the Scarlet Cypress."

Dwarf Apples.

We recommend, unhesitatingly, to all those who wish to grow apples in gardens, to plant and cultivate dwarfs. Where trees 8 or 10 feet high are desired, select the Doucin as a stock;—where the ground is more limited, and smaller trees are preferred, choose the paradise.—*J. J. Thomas in Co. Gent.*

☞ A tubful of soapsuds, farmers should remember, is worth as much as a wheelbarrow of good manure. Every bucket of soapsuds should be thrown where it will not be lost. The garden is a good and convenient place in which to dispose of it; but the roots of grape vines, young trees, or anything of that sort will do as well.

Orchards.—Surface Cultivation.

EDITOR FARMER:—In "Cultivation of Orchards," in the February No. of the FARMER, and quoted as originally from the New England *Farmer*, the writer says: "Upon trying spade culture the second spring I noticed that the earth under the trees was literally bound together by fine rootlets." He says nothing about discerning such rootlets while spading the same ground the previous spring, and as he appears to have been a close observer, we infer that there could not have been any, or else he would have discovered and mentioned it. But what a prodigious stimulus the first spading must have given to the roots to throw out feeders to so have filled the surface ground with rootlets the first season. Only think of it, so full that "a great number of them were broken at every spadeful turned up!"

I have seen orchards venerable with age, yet in all the vigor of their prime, beneath whose branches the soil had been surface cultivated from their infancy. How is it that the fruit trees in our annually spaded gardens most invariably thrive best and bear fairest and richest fruit? I have yet to learn that apple, pear, plum, and cherry trees fill the surface soil so literally with rootlets of which the writer speaks. "His fears were realized," for the next season "two of his best trees died." How best? thriftiest growing, bore the finest fruit, or most abundantly? And what saved the remainder, which were subjected to the same treatment? But "a great many trees died that year, and the cause was attributed to the weather." Ten years hence some one may give equally as absurd reasons for fruit trees dying this season. Of course, best cultivated orchards suffer most in a severe winter. The more rapid growth, the higher quality and greater abundance of fruit that it produces must somewhat lessen the power of the tree to withstand sudden and severe changes. But do not the first considerations more than counterbalance the second? Culture is the condition demanded to grow in perfection all fruits but the wildlings, and it is folly to undertake to produce them without it. This fact applies with equal force to the idea advanced in the article entitled "Choice of Soil and Location for a Fruit Orchard," that "the more compact the soil the better the plum tree will prosper." Who has not seen them doing as well in gardens as anywhere? The argument in favor of very compact soil for plum trees, that those under which cattle tread and lie generally do well, only shows that the richness which they furnish gradually soaks down and feeds the roots, while the compactness of the surface helps guard against the curculio. In the above case, a slightly pervious soil is no doubt the best, as it gives the roots a chance to penetrate it.

We think Mr. Plumb lucky in coming out with his list of hardy pear trees, found in the January No. of the FARMER, for had he waited until after the spring opened, he might have been puzzled to make out one, or hesitated in it at least. Three and four years ago, thousands united in declaring that fruit could not be successfully grown in Wisconsin; and it is our opinion that such croakers are not done yet. But those who press on in fruit culture, through thick and thin, will doubtless finally demonstrate an adaptation to fruit growing not much behind the Eastern and older States. When renowned fruit growing regions suffer severely, we should not grumble at having to suffer also. ECO.

MILWAUKEE.

An Apple Orchard.—How about Grafting?

PROF. HOYT:—Having had an opportunity to read a few numbers of your journal, I have concluded to become a subscriber thereto. I was induced to do so mostly on account of so large a space in its columns being devoted to the subject of horticulture—deeming a knowledge of Western experience and practice more applicable to my case than that from any other locality.

After a trial of seven years, notwithstanding the rigors of this climate and the usual opposition and discouragements from the pests

to which it is peculiarly liable, together with the jeers of the fearful and unbelieving, I have succeeded in raising an orchard of 600 apple trees. And as they are just beginning to bear, I am most anxious to secure all the information available, in regard to their present and future management—purely selfish, I confess. Two hundred of the trees are root grafted, the remainder are seedlings. Do you think it advisable to graft the seedlings? If so, how and when? and what varieties would you recommend for this part of the State?

Judging from the past, I am led to decide that the greatest pests of the young orchard, at least in this locality, are the bark louse and the pocket gopher. How can these most easily and effectually be disposed of?

J. R. MOSHER.

HIXTON, Jackson Co., Wis.

ANSWER.—As your orchard is about bearing, unless you intend to engraft all, it would be better to wait the present season and see what kind of fruit they produce, and so spare none but the best. Some seedlings are quite equal to the best grafted fruit in the world. The Red Astrachan, Fameuse, Fall Stripe, Fall Winesap, Autumn Strawberry, Yellow Belleflower, Tallman Sweet, Northern Spy, Perry Russet, Golden Russet, Romanite and Winter Winesap, are all good and all very hardy. Your other enquiries shall be answered next month.—EDITOR.

The Adirondac Grape.

This variety originated on the shore of Lake Champlain, Plattsburg, N. Y., and was brought to notice by John W. Bailey, of that place. It ripens there usually between the 1st and 15th of September, and is at least one week earlier than any variety yet tested.

Ten days before the Delaware and Northern Muscadine, and a week before the Hartford Prolific. The fruit adheres to the pedicle, is quite free from pulp, and is said to be very delicious.

The Montreal Horticultural Society awarded to Mr. Bailey the special medal of the Society, at the Fair, in the autumn of 1861, for this grape, as the best suited to the latitude of Canada.

It makes rather long-jointed wood for profitable vinyard culture, but, on account of its early ripening, may prove a great acquisition to those sections of the country where the seasons are very short.

Why Farmers should Plant more Trees.

EDITOR FARMER:—I hardly need refer to the miserable and bleak aspect of so many prairie farms and their buildings, nor to the gloomy feelings endured in passing by an unprotected, unadorned, repulsive habitation, instead of *home*, compared with the cheerful feelings enjoyed in passing a sheltered, charming, attractive homestead, as a sufficient reason why we should plant and encourage a liberal growth of trees. The worth of trees as a sheltered shade, in their charms and associations, will not be estimated equally by all, for all are not created equal in respect to local attachments, nor are equally impressed by the beautiful.

But I would answer the question "Will it pay?" with particular reference to the dollar, by presenting some facts ascertained by experience, relative to the planting, management, expense and value of the Yellow Locust tree, in fields, adjoining homesteads, designed for perpetual pasturage.

I consider the locust tree the best we have for this purpose, because, unlike many others, it is not injurious to the grass underneath. The leaves form a suitable as well as bountiful supply of manure, and afford protection to the roots of grasses; and not putting forth their leaves till late in the spring, the grass is therefore well advanced towards maturity before it would be injuriously shaded, while the shade in midsummer is often more beneficial than otherwise.

Raise your own plants if convenient. In the middle of the month of May, put say one pound of good locust seed in a suitable vessel; pour thereon three or four quarts of boiling water; after 24 hours pour off the water, and after two days more, the seed, in the mean time having been protected from cold, will be sprouted and in a suitable condition to plant in good land, well prepared and protected. Plant half an inch deep, in rows three feet apart. Cleanse and cultivate as you would

carrots, and in the fall of the year you will have six feet high plants sufficient for ten acres, allowing each plant about sixteen feet square.

As early as possible the next spring plow the land you intend for trees, and mark it with a plow in rows each way, about sixteen feet apart, and about three inches deep. Insert a tree in each cross mark, and cover the roots about three inches deep. Now mark the land between each row of trees both ways, and plant corn, thereby raising, beside the trees, fifteen-sixteenths of a crop of corn.

Continue to plough and plant with corn, or something of similar growth and management, for three years more, when the roots of the trees will so much obstruct the plowing that it will be necessary to cut and shock the corn around the trees, and sow and harrow in the grass seed as early as possible in the fall, to ensure a good crop of hay the following season.

The expense connected with ten acres thus far, including loss of corn, pruning, &c., will not have exceeded $50, and the expense, in part, for the pruning, &c., required, will be more than paid for in the firewood obtained thereby. And further, it is questionable whether the shelter thus obtained by the grasses and pastured stock from the rage of the scorching sun, together with the abundant supply of leaves as protection and manure to the pasture, drawn from depths not to be reached by any other crop, do not altogether liquidate the original expense, and leave the worth of the trees clear profit; which worth would, ere many years had passed, if properly cared for, be estimated at not less than 50 cents per tree, or $800 per ten acres.

Now your readers may reflect whether they can any longer afford to neglect planting trees, if the above considerations and estimates are nearly correct. It is true that with many it is already too late, without additional expense and inconvenience, to follow the plan proposed, having already been, or soon to be, necessitated to prepare permanent pasture; but with many others it is now the proper time to plant, so as to allow from three to five years, according to the efficiency of the land, and its mode of cultivation, for the trees to attain security from the presence of stock.

As I consider the locust tree not decidedly profitable except in connection with pasture land, it is necessary to have those that are, so that every homestead may be profitably beautified, the prairie diversified and enriched, and firewood, fencing, &c., easily and cheaply supplied.

I may take an early opportunity of presenting the results of experiments made with other kinds of trees, which may be of some use to your readers, if others more competent do not take up the subject. THOS. BEWICK.

WINDSOR, Dane Co., Wis.

The Siberian Crab Apple.

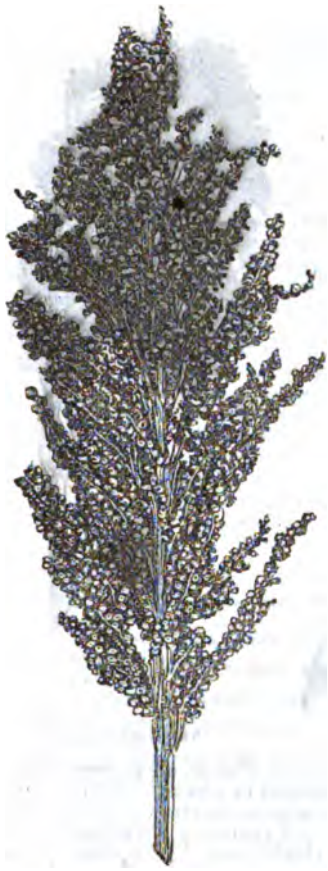
This is one of the prettiest of ornamental trees. It is perfectly hardy and of easy culture. In habit, it is symmetrical when grown on the lawn or uncrowded, forming a rather low, round, spreading head. The foliage is pretty. The tree is a very beauty in spring when covered with rose-hued, fragrant blossoms. In fruit it is net less beautiful, and can hardly be exceeded.

The Golden Beauty and Heslop are nearly ar large as the Lady apple. The one a fine golden hue with blushing cheek, and so fair and smooth you might think it made of wax. The other the deepest and darkest crimson, with a rich blue bloom that looks like velvet, till you rub the apple, when it shines like satin. The smaller varieties, some yellow, some red and some yellow with red cheeks.

The Crab is a useful as well as ornamental tree. Those clusters hanging so profusely on every bough are not only pretty to look at and fragrant, but indispensable to the winter store of good things. All the varieties make excellent jelly, preserves and marmalade, (dark or light according their color), and which once enjoyed the housewife would not willingly do without.—ELSIE, *in Ohio Farmer.*

CABBAGE FLY.—G. C. Morton, of Richland Centre, think the warm sun essential to this insect, and is convinced that planting on the north side of a building is a preventive. Query; will it not also prevent the healthy growth of the cabbage?

CHINESE, NO. 1.



CHINESE, NO. 2.

OTAHEITAN.

Varieties of Sorghum.

[The following extract from the "Sorgo Handbook to E. W. Skinner's Patent Adjustable Sugar Mills," together with the illustrations, should have been published in March, but the cuts failing to come to hand until even after the Agricultural Department of the present number had gone to press, we insert them out of their place, in the Horticultural Department.—ED.]

"Much seed that is sold and distributed is not properly named, and to assist cultivators in classifying and arranging the different varieties they may have, we insert cuts of four of the most widely diffused varieties, including two cuts of Chinese.

"It is claimed by all writers on sorghum, that we have examined, that there is but one distinct variety of Chinese cane. This is undoubtedly true, but nevertheless it has been changed by cultivation in different localities, so that it will ripen earlier; and, in some cases, we have seen in it so changed that the seed head, instead of standing erect, would be somewhat drooping at the top. In the two cuts of the Chinese that we give, there is quite a difference. No. 1 is a fair representation of the cane as first introduced from France, and as it is now seen in some localities. No. 2 is more bushy, and represents the Chinese cane as we frequently see it at the west. This bushy kind is usually earlier than the sorghum as first introduced, and is preferable for general cultivation on that account.

"The other varieties are all African or Imphee, and are distinct, differing in their habits, qualities and appearance.

OTAHEITAN.—This was first especially brought

E-A-NA-MOODEE. NEE-A-ZA-NA. OOM-SEE-A-NA.

before the public by Mr. Samuel Hooker, of Schuyler county, Ill., and described by him as "straight and tall, and on rich lands very thick; has no suckers, each seed producing a single stalk. The juice is clearer than that of the common sorghum, and harder to press out of the stalk." The seed-head is described as being from seven to twelve inches in length and from one to two inches in thickness. Not an early variety.

"E-A-NA-MOODE.—The seed-heads are large, but stiff and erect, containing quantities of large, round, plump seed, of clear yellow color. Not an early variety.

"NE-A-ZA-NA—Sometimes called White Imphee. The seed-tuft is short and bunchy—seed large, round and white. The stalk is usually short and slender, but soft, juicy and sweet. It is claimed by Mr. Hedges that "it should not be allowed to stand on the hill after the seed is well in the dough." It may, however, improve after being cut and ricked, or sheltered.

"OOM-SEE-AN-A.—The stalk of this is slender and taller than the last. Both are early, and should be planted thicker than the Chinese. The seed-tuft of the Oom-se-a-na is erect and slender, with short foot-stalks, purple seed-hulls, showing a brown seed. The stalk is not quite so long jointed as the Chinese, but longer than some of the varieties of Imphee, and differing but little from the Nee-a-za-na. There two varieties we consider the earliest and best of the Imphees for cultivation north of Chicago or Dubuque.

"The Chinese variety of sorghum is recommended for general cultivation by nearly every Convention that has been held in the Northwest. It is earlier than most varieties of the African, and makes a lighter syrup, though for sugar it is hardly its equal."

How to beat the Striped Bug.

EDITOR FARMER:—Last spring, as usual, I had trouble with my vines. I remarked, on coming in from the garden, that if we did not do something, our vines would be spoiled soon. Our hired girl says, "put newspapers over them." I did so, and that was the last bite the bugs got, But I felt provoked all the time to think that I could not have discovered that simple remedy years ago. The plan is to take

a piece large enough to raise it above the plants; then lay lumps of dirt around on the outside to hold it down tight. This may remain until it rains. The plants will grow as well, as it is light and warm, it is also a shelter from frosts. H. CADY.

[From Mr. Parry's Essay on the Cultivation of Small Fruits, read before the Pa. Hort. Soc.]

Cultivation of the Strawberry.

The land should be rather elevated, and not liable to excess of water; a southern exposure, strong loam, such as would be called good wheat and timothy land; a sward plowed under for a crop of corn, is the best preparation of the soil the year previous to planting strawberries. After removing the corn in the fall, or during an open spell in the winter, let the stubs be cut off and the ground plowed deeply; then give a light dressing of manure broadcast, the essence of which will be absorbed by the mellow earth during winter, and be prepared for giving nourishment to the young plants the following season. As soon as frost leaves the ground in March, set out the plants. If the variety be Albany, Iowa, Hovey, or any kind that bears well in beds, mark out the rows five feet apart, and set the plants about one foot apart in the rows, and let them spread evenly over the ground; the offsets or stools should be fastened not closer than within six inches of each other, and all surplus runners destroyed the same as weeds when they appear; for the value of the fruit will be lessened by an excess of plants, as certainly as a crop of corn would be lessened if the quantity of stalks were increased above what were sufficient to give the greatest supply of grain.

If the variety be Triomphe de Gand, Trollope's Victoria, Lady Finger, Peabody, or any kinds that are particularly adapted to hill culture, mark the rows two and a half feet apart, and set the plants one foot apart in the rows, and keep the runners all cut off.

During the first winter, the vines should be mulched over with stable manure, straw, leaves or litter of some kind, to protect them from the severity of the winter. The next summer they will yield their first and large crop, after which it will require much labor to keep the beds mellow and clear of weeds and grass; and the crops of fruit will diminish rapidly—and there is great economy in having a new plantation coming on to take the place of the bearing one, so that after the first and best crop of fruit is gathered, no time or labor need be wasted waiting for inferior ones; but the ground may be plowed and will be in fine condition for a crop of wheat, to be followed with grass.

Thus the strawberry will form a part of the rotation of farm crops, coming in after corn and before wheat.

Under the above treatment in beds, we have had 210 bushels per acre, which, sold at nine cents a quart, brought $600.

When it is desired to continue a strawberry bed several years in the same place, the plants should not be allowed to strike root nearer to each other than from ten to twelve inches, so that a small iron tooth rake may be passed freely among them to loosen the surface and prevent grass and weeds from starting, mark the rows five feet apart, and set the plants one foot apart in the rows, and as the plants throw out runners, fasten two on each side of the parent, at ten inches distance, making beds three feet and six inches wide, and leaving eighteen inches for alleys. All other runners should be cut off.

This arrangement will average just one plant to a square foot of land, counting alleys, and will give 43,560 plants to the acre, and allowing four hills, occupying four square feet of land, to yield one quart of fruit, the acre at the same rate will yield 340 bushels.

The "Farmer" in Minnesota—Fruit-Growing &c.

MR. EDITOR:—I have taken the FARMER since its first number, long ago. I think I have never missed one. It seems to me like an old friend. If one number stays a little long, I am uneasy for it. I don't think I have lived nearly up to its teachings, nor have I fulfilled my promises to myself when receiving its lectures; yet it has been a pleasure and profit to me—pleasure for its many kind words, and profit for some good thoughts and sentiments stored away in the head and heart, if no more. I think your magazine ought to circulate freely in this new State of Minnesota. We are to go through the same struggle and experiences here that Wisconsin has had.

In the way of fruit-raising we need your experience and your *scoldings*. We are buying and setting out fruit trees so much at random as to varieties, and we are browsing our orchards too freely in the winter, spring and fall to get fruit soon.

The truth is, you know, that fruit trees need rest in winter—a thing too many learn too late. I have never seen so much carelessness about the wintering of orchards, fruits, shrubbery, &c., as I see in this new, rich, and heaven-favored State; and the result is to be that

many will give over fruit-raising here because trees don't take care of themselves.

There is considerable discussion going on now as to whether we can raise fruit. Some of our Legislators have been thumping heads together, trying to start ideas and get them to vegetate. Now will you not turn missionary a little, and tell us what to do all through?

I am satisfied that we can raise just the same fruits here that you do in Wisconsin, with just the same treatment, and same foundation. We will give you liberly to dictate a little in this whole matter of fruit-raising, and agricultural policy generally, if you will only speak loud enough so as to be generally heard; besides it must come quick, for some hearts are faint already.

A. A. HUNTINGTON.

WINNEBAGO CITY, Minn.

REMARKS.—We endorse your letter throughout, friend Huntington. Meteorological observations have demonstrated that the spring and summer climate of St. Paul—and, of course, of those portions of the State which lie south of that latitude—for purposes of agriculture, is quite as favorable as that of southern Wisconsin or northern Illinois; and unless your fruit trees are literally frozen to death by your colder winters, we can see no reason why your orchards should not flourish equally with ours. For fifteen or twenty years our fruit-growers have been groping, blundering and cursing the climate, yet still contending for the mastery, until, at least, they have become pretty generally convinced that they, and not Providence, have been to blame.

Get the *hardiest varieties*, plant in the *proper place*, and give them *the cultivation they deserve*, and you are *sure to succeed*. On all these points the FARMER has, in times past, been full and explicit in its teachings. If there is yet a single particular in regard to which there is doubt, however, let us know just what it is, and the light of the best fruit-growers in the West shall be made to shine upon it.

When the sign comes right, we shall be glad to accept your invitation to visit Minnesota —EDITOR.

Watermelons for Vinegar.

MR. EDITOR:—I have read the FARMER for three years and do not feel inclined to return the first No. for 1864, for I have more land to till this year than before, and cannot well do without the useful hints and instruction contained in the FARMER. I hope the Youth's Corner will continue to flourish, as our little folks look for that the first thing.

You ask your subscribers to write something for the FARMER. I make no pretensions in that line, but I will send you a recipe and let go for what it is worth. Many families are troubled to keep good vinegar. Now if such, when the time comes, will plant a patch of watermelons, and succeed in raising some, they can have vinegar for the making.

Take ripe watermelons, scrape out the inside, press out the juice, strain, and then boil it down about one-half; put it away the same as other vinegar, and it will make an article equal or next to cider vinegar.

F. E. PEASE.

DUNNVILLE, Wis.

Grafting Composition.

A well tried recipe is, 4 parts good rosin, 2 of beeswax, 1 of tallow; melt all together over a slow fire, stir well, turn into cold water, pull and work thoroughly. It must be kept in warm water if the weather is cold when using.

Another: 4 parts rosin, 3 parts lard, and 3 parts beeswax. Melt and mix as before. Strips of cotton cloth can be dipped into this composition white hot, drawn between two sticks to remove the surplus, and cut into any desired length. The same wax can be applied with a brush to cloth or paper, which can be cut into strips when cold, or the same composition can be applied *hot* with a brush directly to the graft, the same as otherwise, applying strips of paper immediately, to protect from the sun and wind.

With the latter we have been very successful. J. C. P.

Hints for Orchard and Garden.

This is the month for planting and transplanting. See that the work is well and faithfully done.

Cutting back a portion of last season's growth, when transfers are to be made, is a good plan. The stem and branches should bear a definite proportion to the amount of available roots.

Any trees that were budded last year should early be pruned of the growth above the inserted bud. Grafting may yet be done.

If the orchard is to be cultivated, use great caution against the injury of roots and trunk or stems. Deep culture immediately about the trees is not admissible.

Watch the caterpillars. They will be laying their eggs in great quantities this month. Brush out the nests as soon as discovered and burn them.

May is the month for transplanting evergreens. Take up and put them out in a wet time, and preserve as much as possible of the earth about the roots. Plant with much care and mulch.

The strawberries must not be neglected. Rake over and thin out old beds. In planting new ones, put the plants far enough apart to allow of thorough horse culture between They will soon spread and cover the ground; no trouble about that. Sleek up and trim the raspberries and blackberries.

Garden vegetables of every description should be planted as soon as the ground is sufficiently warm. Cucumber, squash, and melon vines should be guarded against the bugs which prey upon them. A little square box,—only the four sides—dropped over the hill and covered a part of the day with glass, will facilitate growth and help to protect.

Now is the time to attend to the flower garden. Don't neglect it too long. It's just as easy to have a delightful succession of flowers all summer long as not. The husband and sons should help the mother and daughters in the heavy work of digging and planting. In this way all will be sharers in the high pleasure they will afford when in bloom.

Rabbits gnawing Fruit Trees—A Prescription that don't work.

EDITOR FARMER:—On page 70 of WISCONSIN FARMER, February No., we read an extract from the *Valley Farmer* how to prevent rabbits eating fruit trees. Acting upon the suggestion, I killed a rabbit and rubbed my trees as directed, and it "worked like a charm;" for those I rubbed as directed were, in one week's time, gnawed and girdled worse, if possible, than those I did not rub! I have about 100 trees girdled in this way. Does anybody know how I can save them? Can they be saved at all? They are girdled from one to three feet high. A. H. EDWARDS.

BEAVER DAM, Wis.

[A plaster of clay and cow manure, mixed, is recommended by some who claim to have tried it. Don't think it could do the injured trees any hurt, unless it should disgust them! —ED.]

Fruit Trees.

MR. EDITOR:—In the Weekly *Tribune* of the 26th of December, it is urged that fruit trees —pears and apples are named—should be so trained that the sun will shine on some part of the body some time through the day. I have had some experience in the last forty years, and am fully convinced that it is the sun shining upon the body of trees that causes them to die. In 1820 I was shown an orchard that had been set out about ten years, and begun to bear fruit. In passing through the orchard we frequently came to trees that had been broken off by the wind close to the ground, the south side having the appearance of having been killed by the fire, while a strip of bark on the north side was yet green, and the body was very much worm eaten.

The class of trees that were killed in this way were the tallest bodies with the least tops. On the other hand, in opposition to that, the boys, when clearing the land adjoining, built log pens for about a dozen or more trees, in the form of a log house, six feet square, and four or five feet high. These trees had twice the growth of the balance of the

orchard. No grass or any thing else grew inside this pen.

I believe that what we need to preserve our trees is shade. Even a board set up on the south side is a protection. I know several men in this State who have been very successful with the shade culture Some set their trees in hedgerows of currants, raspberries, and other small shrubbery, and others plant gooseberries, raspberries, or currant bushes with their trees, and they grow around them and shade them. I am fully convinced that there is no danger of losing a tree, if a proper precaution in this respect is attended to. You will observe that Nature produces a leaf to shade the stem as soon as it makes its appearance, and if it were not for meddlesome man, Nature would furnish sufficient protection in its leaves and boughs. All vegetation seems to require a certain amount of shade to perfect its growth.

My experience is that manure is twice as valuable, spread upon the surface, as it is to be plowed under. One peculiarity I have observed in trees set in hedgerows of small shrubbery: the tops do not grow as thick as when standing alone. They need no thinning out, and require little or no pruning. If I were to advise my friend in setting out an orchard, I would say to him: Set your trees in rows north and south, and so near together that will shade each other, but make the space between the rows considerable wider, so as to cultivate between them. L. WOOSTER.

MARKESAN, WIS.

Glout Morceau Pear.

On the grounds of Edward W. Herendeen, of Macedon, N. Y., a single dwarf tree of this variety, eight years planted, bore one barrel of excellent fruit. It had received but moderate cultivation. The pears were large and fair, and ripened into a fine flavor on the approach of winter.

Ellwanger & Barry, of Rochester, as we may have stated on a former occasion, have sent their crops of this pear to the New York market, where they have sold early in winter, when in fine eating condition, at three dollars per dozen.—*Country Gent.*

The Glout Morceau did finely with us at Waukesha. In 1861 we gathered from a tree of this variety, five years planted, over half a bushel, being its third crop. A. G. H.

New Rochelle Blackberry.

The productiveness of this variety of blackberry was never so enormous, we believe, as it was the past season. When we consider the ease with which this fruit can be grown, the low price at which the canes can be obtained, as well as the truly delicious quality of the fruit, it is surprising that everybody who has a little ground has not a row of them. But this could be soon accomplished if those who cultivate the fruit would distribute among their neighbors the surplus canes, instead of throwing them away, as some do who regard any neighborly kindness requiring a little personal labor as a bore not to be submitted to.—*Germantown Telegraph.*

MECHANICAL AND COMMERCIAL.

Cultivators or Horse-hoes.

MR. EDITOR:—I have been a reader of your valuable paper for some time past, but never have seen anything very definite in relation to cultivators or horse-hoes Now as the time for their use is at hand, it would interest me, and I think many others, to get a description of some of them in the next No. of the FARMER, also where they can be obtained, and at what price. Please give us your opinion also in respect to carrot weeders, and whether the same tool will do well for both carrots and corn. G.

[This subject will be discussed in next No. —ED.]

Get the best Implements.

This season, labor will cost so much more than usual that it becomes doubly important that every farmer should have the best labor-saving implements he can command. It will often pay to supercede an old one by a new and improved pattern at considerable extra expense.

Look well to your farming tools. Good implements are always cheaper than poor ones, and a breakdown in a hurrying time may cost more in repairs and time than the first cost of a new and improved machine.

SCIENCE, ART, STATISTICS.

Water Pipes.—Is Lead poisonous.

MR. EDITOR:—Another subject and one concerning which I crave information, is that of water pipe. I have a spring eighty rods from my dwelling, with a fall of fourteen feet, the water of which I wish to make available for culinary and stock purposes. Will you please give me your opinion as to the best medium for conveying the same. I wish more especially to know whether lead imparts poisonous qualities to water, and whether gutta percha is used for the above named purpose. And what would probably be the cost per rod of a half-inch pipe of each in Milwaukee.

J. R. MOSHER.

HIXTON, Wis., Feb. 3. 1864.

ANSWER:—Lead is poisonous, but inasmuch as there is present in all spring water some sulphate, which by combination with the lead forms an insoluble coating, lead pipe, for the purpose named, is about as harmless as wood.

We would recommend that the water be allowed to flow through the pipe a few days before being used, in order to give time for the coating to form. A small quantity of sulphate of soda dissolved in the first water that fills the pipes would answer the same purpose. The gutta percha is also used. Price of ⅝ inch lead pipe per foot 18 cts.; of gutta percha, not known.—EDITOR.

DEPTH OF COAL BEDS.—Heath's mine, in Virginia, is represented to contain a coal bed fifty feet in thickness; a coal bed near Wilkesbarre, Pa., is said to be twenty-five feet thick; at Mauch Chunk is a coal bed forty to fifty feet deep, and in the basin of the Schuylkill are fifty alternate seams of coal, twenty-five of which are more than three feet in thickness. In Nova Scotia is a coal bed fourteen hundred feet deep, and containing seventy-five alternate layers of coal. The Whitehaven coal mine, in England, has been worked twelve hundred feet deep, and extends a mile under the sea, and the Newcastle coal mine in the same country has been worked to the depth of fifteen hundred feet, and bored to a similar additional depth without finding the bottom of the coal measure.

THE MINER.

Silver in Nevada.

We give below a list of the dividend-paying mines of Nevada Territory. In times like these, when the nation is incurring a large National Debt, it is interesting to know that we have within ourselves bullion sufficient not only to pay the interest on the debt,—however large it may be—but, with sufficient men and machinery, the entire debt can be paid off during the present generation. Statistics show that in 1859, what is now Nevada Territory did not export an ounce of bullion, and that the exportation in 1863 was $30,000,000, and this, too, with but few dividend-paying mines.

CLAIMS ON THE COMSTOCK LODE, INCLUDING THOSE OF GOLD HILL PROPER:

	No. feet.	Value per foot.	Total value.
Ophir	1,400	$2,200	$3,080,000
Mexican	100	10,000	1,000,000
Gould & Curry	1,200	5,000	6,000,000
Central	150	1,600	900,000
California	300	1,800	540,000
Central, No. 2	150	1,050	157,500
Kennett	60	1,200	72,000
White & Murphy	210	700	147,000
Dick Sides	500	600	300,000
Best & Belcher	225	1,000	225,000
Savage	800	3,000	2,400,000
Hale & Norcross	400	1,800	720,000
Chollar	1,400	1,000	1,400,000
Potosi	1,400	1,500	2,100,000
Fairview	1,200	500	600,000
Copperas G Mills, 1,2,3,4	1,200	400	480,000
Apple & Bates	10	3,000	30,000
Ala Imperial Co	128	3,500	408,000
Bacon M. Co	45	10,000	450,000
Empire Mill & Min.Co.	32½	16,000	512,000
Hamilton & Co	22¾	10,000	227,500
Grissam & Co	20	15,000	300,000
Sparrow & Co A	20	10,000	200,000
Plato	10	10,000	100,000
S. S. Bowers	20	10,000	200,000
Hamilton & Co	10	10,000	100,000
Winters & Booth	20	8,000	160,000
Coover & Co	21	8,000	168,000
Rice & Co	13½	8,000	108,000
Logan & Holmes (2)	65⅔	4,000	262,666
Winters & Co	56	3,500	175,000
Dall & Davis	25	3,000	75,000
Johnson & Ladman	25	3,000	75,000
Arrington & Co	25	3,000	75,000
Burke & Hamilton	40	3,000	120,000
Irwin & Co	30	3,000	90,000
Yellow Jacket	1,200	1,000	1,200,000
Total	12,550		$25,342,666

The total number of feet in all these claims is 12,558, which, at the present market rates, are valued at $25,000,000. This estimate comprises only those supposed to be located directly upon the Comstock ledge. There are several parallel leads in close proximity to the Comstock, some of which, perhaps, continue throughout its entire length; and from these leads valuable ore has been extracted, but not as yet in sufficient quantities to be very remunerative, if we except a few of the more prominent claims.

About 5,000 feet of the 12,558 above enu-

merated in the Comstock ledge are now yielding a revenue to stockholders. The energy displayed in the development of these mines will, if continued, soon add other claims to the dividend-paying list.

The Gould & Curry is yielding, at the present time, about $450,000 per month; and when all the improvements now under way are completed, it is thought the product will exceed $500,000.

The Ophir is producing about $150,000 monthly. The yield of the Savage exceeds $100,000. The Potosi yielded $77,000 in one month.

The total product of all the mines on the Comstock, including Gold Hill proper, cannot at present be far short of $1,000,000 per month, which is just 4 per cent. per month upon their market value of $25,000,000.

NATURAL HISTORY.

The Flour Worm.

I will give you the changes of the bug that produces the Flour Worm, which will be of interest and value to all families that keep flour,—to farmers who keep wheat in their granaries, and more especially to millers.

It is a small black bug, half an inch long, and an eighth of an inch broad, flat and thin, with a long head, and has six legs.

They lay their eggs in the crevices about the meal chests, and in the bolts of flouring mills. The egg hatches into a worm, which when first hatched is not visible to the naked eye, but which grows to the length of half an inch in six months, secreting themselves under boards and boxes and mortice-holes, or wherever there is flour dust. They do the most damage when the mill is not running, by eating holes through the bolting cloth. The miller should be very particular in April to move and sweep throughout the mill a few times during the year, and destroy them by feeding them to poultry or burning them.

They are in the worm state three years before they are a bug again, of course eating and doing injury all this time, and grow to be an inch and a quarter long, of a yellowish color, and of the size of the top end of a wheat straw. They moult three times while in this state. They change into a bug again after the third time moulting, making the three years time.

Now if you and your neighbors will sweep up and destroy the worms, you will have no bug to lay the egg again to produce them.

I will now describe the Pea Bug, so often seen and not generally understood.

The egg is laid in the pea when the blossom is yet on the end of the legume or pod. It hatches into a worm, remains in the pea, passes into the chrysalis state, and then comes out a bug in March or April of the next year. All the peas, not intended for seed, should be fed up or ground before the month of March, but those saved for seed should should be put in a tight bag, and kept till they are wanted for sowing, when pour them out into hot water, to kill the bugs. If *all* the farmers will follow these directions, they will not be troubled with bugs in the peas, for this is their element and nothing else. Another remedy, perhaps not as good, is to keep seed peas two years, not sowing within that time. There will then be no bugs to lay eggs in the peas. Still another remedy is to sow late in the season, about the first of August, when there are no eggs, they having all been laid in the early season. It is for this reason that this crop is so valuable in Canada, and more perfect, because not early planted so as to be injured by this insect. It will be the same here if late planting is resorted to. MILTON G. ALMA.

FARMER, Seneca Co., N. Y.

EDUCATIONAL.

County Superintendency.

MR. EDITOR:—In your journal for March I read an article in which the office of County Superintendent of Schools is assailed. Some objections to it are set forth, and the writer closes by advising the circulation of petitions to abolish the office. The writer, O. P. D., if I am not mistaken in the man, has been a town superintendent, and is a true and zealous friend of common schools. Hence I am disposed to render all due respect to his article. Some of his objections are quite plausi-

ble, but I am persuaded from my observations and reflections that the greatest objections are not in the system alone, so much as in its misuse. The system might be rendered more efficient by certain modifications, and by having the right kind of men to fill the office. I am by no means insensible to its defects, but, under the town system, teachers did not receive the encouragement that they now do, and I know, too, that schools have been vastly improved under the present system.

I have had personal acquaintance with several County Superintendents who were active men and who were well acquainted with school policy, and who assidously looked after the school interest. Some were negligent, or, perhaps, had too many schools to look after—more in their counties than they could visit once during each term. Perhaps, too, some, in their inspection of schools, were more influenced by reports from some of their political cronies than by what they should have learned by personal examination. Too many people do not know how to visit a school so as to learn what its real condition is, to show due respect to the teacher, to encourage the pupils, and to leave a salutary impression. So it may be with some of the County Superintendents, but it was more so with the town superintendents. Many towns do not afford a man that knows enough about the sciences and school policy to hold the office of superintendent. The county at large, or a senatorial or assembly district, will be more likely to afford such an one.

O. P. D. says: "Under the present system the distance from the school to its nearest superintendent (which is from district to county) is so great that there is a coldness and lack of interest engendered that causes many schools to flag." This may be so in some large superintendent districts or counties. But there is a remedy. Let each superintendent have jurisdiction over only as many schools as he can inspect at least twice during each term, besides holding the examinations. And let us have men in the office who are well qualified, and who will be attentive to their duties. Fidelity to official duty is as much needed as anything else to answer all the designs of the system.

The public examinations by the County Superintendents are interesting occasions, and they have a beneficial influence on the teachers and those who attend as spectators Those by town superintendents were often farcical. The Institutes which the Superintendents are now required to hold are very advantageous to teachers and highly interesting to all friends of education.

Hence I affirm that we only want proper qualifications in the present superintendents, and more faithfulness in their duties, rather than a change to the old system. G. D. H.

BEAVER DAM.

MISCELLANEOUS.

The Emigrant's Farewell.

BY MRS. F. D. GAGE.

Farewell to the land,
With its hills so bonny and green,
And its valleys low, where the corn-blades grow,
And the brooks go dancing between.
Farewell to the woods,
To the rock, and the bush, and the tree,
Where the wild birds sing in the days of spring,
And the squirrels go bounding free.

Farewell to the vill!
I've dwelt here many a year;
I've often been sad, but still oftener glad—
My smiles have outnumbered my tears.
Farewell to the homes
That have welcomed me many a day;
May blessings fall on cottage and hall,
As years go speeding away.

Farewell to the streets—
I have wandered through them long;
To the mothers rare and the maidens fair,
And the old men kind and strong.
Farewell to each child,
With its young hopes merry and bright;
May its heart be true, and its sorrows few,
And its life-path cheerful and light.

Farewell to my pets!
They will come in the summer hours,
And lift their heads in the dear old beds—
My loved and cherished flowers.
Farewell! May the hands
I love come to gather them here,
And twine the bouquet at the dawn of day;
And think of me with a tear.

Farewell to my home,
Where I've loved and labored so long,
Where my children all grew healthy and tall,
As duty and love grew strong.
Farewell to the hearth
Round which we gathered at night—
We shall meet no more as we've met before,
T chat by its pleasant light.
Farewell! I'm going away;
But never till I die
Will my heart grow cold to the loved of old—
Friends—village—home—good bye!

Bayonet Charges.

It is said that, severe and well contested as the fight at Pittsburg Landing undoubtedly was, but one bayonet wound has been discovered by our surgeons there, and that was inflicted by a barbarous rebel upon a helpless sick soldier, lying in a hospital tent. Some surprise has been expressed at this fact; there is a general impression that after a bayonet charge, if the contesting forces are composed of brave men, there should be a great number of such wounds. Even Mr. Russel, the correspondent of the London *Times*, seems to have fallen into this error in his account of the battle of Bull Run; he spoke slightingly of the conduct of our soldiers there and gave as one reason for his poor opinion, that he could hear of no men in our hospitals wounded by bayonets. From this, of course, the inference was drawn that our soldiers did not hold their ground as well as they ought to have done. From an account of some conversations with rebel officers, in a letter printed in Saturday's *Evening Post*, it will be seen that the enemy was not of Mr. Russel's opinion. They say that our soldiers fought gallantly, and, if well led on, would have gained a victory. But after the battle of Waterloo, where both sides fought with conspicuous bravery and determination, there were found, after a careful search by the Surgeon General of the British army, but seven bayonet wounds in all the hospitals to which the wounded, French as well as English and Prussian, were carried; and at Waterloo the forces engaged were much more numerous than those who fought at Bull Run.

The truth is that a bayonet charge is a very different affair from what is generally supposed. In the first place, the regiment or other force which makes the charge, though probably ranged as near as possible squarely opposite its enemy, cannot keep up this formation during the quarter of a mile or more of ground which must be traversed by it before the foe is reached. Even with the best drilled and bravest men, one end of the line lags behind, and if the enemy should stand still to receive the charge only a part of the line would be engaged at first.

In practice, however, military writers confess that bayonets are very rarely actually crossed. A charge usually takes one of three turns: either the charging party, by its firmness and impetuosity, throws the opposing force into a panic, and it breaks rank and flies without awaiting the thrust of the bayonet; or by firmness and a well delivered volley at short distance, the side which is attacked drives off the other; or, in the fewest cases, both sides behave well, and then, in the words of one of our most distinguished generals, "the best sergeant decides the fate of the charge," because only the sergeant and one or two men at the end of the line which first comes in contact with the enemy's line are really engaged during the few decisive moments, and thus the conduct, individual bravery and strength of perhaps half a dozen men, who alone cross bayonets with the enemy, gain the victory for the side to which they belong.

The mere appearance of an impetuous and determined bayonet charge is generally counted upon as decisive by commanders. The troops charged upon are almost sure to seek shelter from the dreadful sight, as the rebels did at Williamsburg, at Pea Ridge, at Fort Donelson, and at the gallant little affair of South Mills, near Elizabeth City, which is less known than it deserves to be. "What do you suppose we keep our bayonets bright for, but to scare the enemy?" a distinguished general said to one who was inquiring into the nature of bayonet charges. and a Marshal of France wrote: "It is not the number of killed, but the number of frightened, that decides the issue of a battle."

Do whole regiments, then, never cross bayonets? it will be asked. It would be rash to say never; but it may be safely asserted that military histories record but few such affairs. Jomini says distinctly that he saw a bayonet fight but once in all his military experience; and it is related by one of the historians of Napoleon's wars, that when the French were once charging the Prussians with the bayonet when the latter would not or could not retreat, there ensued a spectacle unexpected by the officers on either side. The French and Prussian soldiers, when they got within striking distance, apparently by mutual consent, clubbed their muskets and fought desperately with their arms thus reversed.—*N. Y. Eve. Post.*

THE HOME.

Farmers' Daughters.

Mr. Editor:—Will you allow me, through your columns, to say a few words to that most interesting class of our young ladies, farmers' daughters?

I say this, my young friends, not in the spirit of flattery, but because I really believe you to be, as a class, in real stamina and completeness of character, superior to any other. Some of you, it is true, when you are sent into the city to attend school are very foolishly ashamed to have it known that your father is a farmer, unless you can make it appear that he is a wealthy one, so that you have not been obliged to assist in the daily labors of the

farm. This appears very surprising to those who take a sensible view of things, and argues so little sense in this class of our young folks that I will pass directly to those who are in the habit of helping to milk the cows, when it is necessary, and who find it a pleasure rather than a task, to be foremost in the preparation of that most delightful meal—a farmer's breakfast. To such as daily lend a cheerful hand to the duties of their daily lives, and who are not mortified at the rosy cheeks they bring into the homes of their village cousins, I would say: Improve to the utmost all the privileges that have fallen to your lot, and make the most of your daily and intimate acquaintance with Nature.

I will say to you, what I would not say to your city sisters, that it will do you no harm to spend an hour, now and then, alone in the woods, building cloud-castles, dreaming, romancing, or what you will. It does not hurt a true farmer's daughter to be a little romantic. Among the healthful influences that surround her, and the busy cares of her life, there will be little danger of her becoming either "lackadaisical" or morbid, and such reveries, besides being very pleasant, will add a nameless charm to a character which might otherwise, from the force of circumstances, become too entirely practical.

Above all, do not think, those of you who are deprived of the facilities for education that others enjoy, that you are justified in remaining ignorant. There is scarcely one of you who has not some friend whom you could apply to mark out a course of reading and study suited to your age and attainments. Such a system, though sometimes wearisome and discouraging, like a tedious journey on foot and alone, will in the end, if perseveringly carried out, compensate you as richly as the delights of home and friends repay the way-worn traveler for all the hardships he has endured. You will feel yourselves at home among cultivated and educated people, and the fruits of knowledge will be all the sweeter for the exertion that has been necessary to attain them. E. P.

STEVENS POINT, Wis.

Under the Violets.

Her hands are cold; her face is white;
No more her pulses come and go;
Her eyes are shut to life and light:
Fold the white vesture, snow on snow,
And lay her where the violets blow.

But not beneath a graven stone,
To plead for tears with alien eyes;
A slender cross of wood alone
Shall say that here a maiden lies,
In peace beneath the peaceful skies.

And gray old trees of hugest limb
Shall wheel their circling shadows round
To make the scorching sunlight dim
That drinks the greenness from the ground,
And drop their dead leaves on the ground.

When o'er their boughs the squirrels run,
And through their leaves the robins call,
And, ripening in the autumn sun,
The acorns and the chestnuts fall.
Doubt not that she will heed them all.

For her the morning choir shall sing
Its matins from the branches high,
And every minstrel voice of spring,
That trills beneath the April sky,
Shall greet her with its earliest cry.

When, turning round their dial-track,
Eastward the lengthening shadows pass,
Her little mourners, clad in black,
The crickets, sliding through the grass,
Shall pipe for her an evening mass.

At last the rootlets of the trees
Shall find the prison where she lies,
And bear the buried dust they seize
In leaves and blossoms to the skies.
So may the soul that warmed it rise!

If any, born of kindlier blood,
Should ask, What maiden lies below?
Say only this: A tender bud,
That tried to blossom in the snow,
Lies withered where the violets blow.

Some Kinds of Christians.

There is a class of persons in the world called Christians, who profess to love and serve God. There are several kinds. The Sunday Christian, who all the week through is not to be distinguished from the non-professor, except that he is more remarkable for grinding the poor, and for the tightness of his purse strings. Sabbath morning he dons his christianity as regularly as his best coat, and with stately step and elongated face he enters the house of God. He contributes liberally to *public* charities, is loud in his amens, and says within himself, "Lord, I thank thee that I am not as other men are." He returns home, and hangs his coat and religion in the clothes-press, and is ready for another week of hard dealing.

Then there is the *chance* christian, who has

not independence enough to be anything different from the company in which he happens to be thrown; consequently when in company with christians he is as good as the best of them.

We have more particularly to deal with the *winter* christian—one who may have enjoyed religion in times past, but now (I scarcely know how to account for it) is dead, except in time of revival, when he becomes wide awake, can pray as long and fervently as the minister, labors with all who happen to come in his way to become christians, and seemingly has his heart so filled with the love of God that there is danger of an explosion from its unnatural expansion. When revival has passed, and summer, with its multitudinous cares, makes its appearance, his zeal begins to ooze out, and until there in another revival inaugurated there is nothing very alarming about his appearance. Oh! the influence of such a man upon his family, his neighbors, and upon community! It is very clear to be seen when he really begins to feel as though he would be useful, his example looms up before us, and his admonitions are as "sounding brass and tinkling cymbal." Turn your thoughts for one moment toward the *whole-souled* christian, who, whether he eats or drinks, does all to the glory of God. Draw the contrast; then, whether your life be long or short, let it be an embodiment of religion as it really is, a living principle. NINA.

LAUREL HILL.

WIT AND WISDOM.

—We generally prefer new articles to old ones—the new mades to the old maids.

—Be temperate in diet. Our first parents ate themselves out of house and home.

—Politeness is like an air-cushion; there may not be anything in it, but it eases jolts wonderfully.

—A young man who has recently taken a wife, says he did not find it half so hard to get married, as he did to get the furniture.

—A Dutchman being called upon to give a toast, said: "Here ish to de heroes what fit, pled and died at de battle of Bull Run—of which I am one."

HEALTH AND DISEASE.

What shall we Eat?

DEAR FARMER:—I was much interested in the article in your February number, under the heading, "How we abuse our Stomachs." I believe it is all true, and am sorry it is so, for it is a sad reflection that so many in this great nation are "digging their graves with their teeth." But it seems to me that, had I wielded that writer's pen, I would not, *could* not have left off where he (or she) did; but having pointed out the danger, I would fain have suggested a remedy.

Suppose, for example, a prairie-farmer's wife, as she reads the article referred to, should resolve that, so far as she is concerned, she will wash her hands and her conscience from any share of this stomach abuse; that henceforth nothing but *health* shall find a place under her dish covers. Noble resolution! but how to be carried *into practice?* Aye, there's the rub. Remember, I am speaking of a farmer's wife, whose duty it is, in harvest or threshing time, to prepare three meals and two lunches per day, for from six to sixteen stalwart, hard working men. Now, let us see what things are ruled out of the common bill of fare: "Too much meat, especially *pork*." Well, empty your pork barrel, and nail on the cover of the beef tub. "Hot, soda-raised biscuit, hot griddle cakes," flour, corn meal, rye and buckwheat, all at "one fell swoop." Alas for supper and breakfast now! "Hot *black* coffee," yes, and hot *green* tea. Alas for those who flood their stomachs with six or seven cupfuls of these colored liquids till the eatables they have *bolted* are all afloat! What will they do?

But again: "Pies are another American abomination." Strike them from the list. What an awful chasm in the cook's resources! Mince, apple, squash, pumpkin, potato, tomato, lemon, plum, cherry, berry, molasses, vinegar, pieplant, oyster, chicken, and any and every other "fixin" ever called pie, be henceforth and forever banished from farmers' tables!

But more yet: "Even our bread is unwholesome. It is made of the finest of fine flour, and fermented until its natural sweetness and a large proportion of its nutritive elements are destroyed, or raised with those poisonous chemicals, soda and cream of tartar. In either case it is unfit to be eaten." Well, well, what next? Even bread, the "staff of life," condemned! Poor farmer's wife, what will you do? Your delicious white biscuit, that tempting shortcake, the fine light bread, so well appreciated that from fifteen to twenty loaves per week will barely supply the demand—all these "*unfit to be eaten!*" What a wholesale murderer you are getting to be! But yet again: "The rich cakes which our good housekeepers deem so indispensable"—yes, and which our good farmers *will have*—"are still worse." That will do.

Now, tet us suppose that the worthy author of "Hints toward Physical Perfection," from which is taken the extract referred to, prompted by sympathy for our poor farmer's wife, or by a desire to see the practical workings of his theory, should volunteer to get dinner or supper for the farmer and his men. Let us see what he would not have wherewith to garnish his table, and satisfy the desires of hungry, laboring men. No meat, or but little, perhaps a chicken, or a bit of mutton, if he can get it. Remember, he is on the prairie, with no market nearer than from seven to twenty miles. No raised bread, no biscuit, no griddle cakes, no pies, no sweet cakes,—well, wouldn't we women folks like to see that table all ready for dinner, or supper, or breakfast, no matter which? And wouldn't we like to hear what the men had to say when they had done eating? Shouldn't wonder if the first meal on the "healthy" plan would be, with many of them, the last; and, instead of binding sheaves in the harvest field, they would, most likely, shoulder their packs and be off. For, however nice this theory may be, and true, withal, and, perhaps, practicable in one's own little family, it does seem to me very nearly an utter impossibility to adopt any such reforms in a farmer's family, where there are a number of hired men. Why, a loaf of brown bread is enough to scare away nine out of ten of common hands.

Now, Mr. Editor, will you or some of your many readers, who know how, be so kind as to answer the question that heads this article in such a way that the answer can be used practically and successfully in a farmer's family, and yet so as to give satisfaction all around? Suppose a bill of fare of articles that are good, easily obtained, and, at the same time, healthy, be prepared as soon as June or July, before the farmer's "summer campaign" fairly opens, but not sooner than a good garden will begin to afford its welcome aid.

For this, or some other satisfactory arrangement that will satisfactorily answer this mooted question, you will receive the thanks of not one only, but of many a

FARMER'S WIFE.

[Communications on this subject will be in order, and receive special consideration at the earliest possible date. The more the better. —MRS. HOYT.]

DOMESTIC ECONOMY.

May—Care of Winter Garments.

Possibly, by the last of this month, flannels and woolens not wanted during the summer, may be packed away. By proper care, moth will never trouble you; we can vouch for this from long housekeeping experience. All woolens not in use should be put away in bags, old pillow cases or papers, and have a place by themselves, where plenty of tobacco leaves should be laid among them. If you are in the vicinity of a tobacconist, you can procure the rough leaves and stalks at a trifling cost, or you can raise from seed what you need. One lot, if put up every fall, will last a number of years. Put it in your yarn bag, stocking bag, and your bags where you keep woolen pieces distinct from others. It is well to have a large chest or box for putting away woolens, then in an old pillow case or bag, fold each individual's garments by themselves—with the tobacco between the folds. Overcoats and cloaks should be folded neatly and pinned in any piece of old cotton cloth. Furs, too, may be put up in tobacco; a more sure way for these is to take brown paper or strong news-

paper, in which there are no breaks, and paste the edges together firmly, slip the furs and tobacco in, and then put them in bags and hang up or lay on shelves where they will not be crushed.

If moth once get in a house it is difficult to eradicate them; therefore *keep* them out. Don't allow woolen pieces or bits of fur to be tucked away or lie tossing about closets or garrets. If they are of no account, so much the better reason for taking care of them, unless you wish to propagate a crop of moth to perforate your best cloak and your husband's Sunday coat. Have an especial bag for them, well perfumed with the fragrant weed, or else send them right out to the compost heap; they will help make the peas grow. Have plenty of tobacco leaves in your bag of carpet rags, and if you have a carpet, not in use, put the leaves between and pin in an old sheet. Blankets, too, should be thus carefully put away. To destroy vermin is the only possible good use to which this weed can be put

In the fall, take out your woolens—save your tobacco, no matter how fine it crumbles, for next time—and hang the garments out on the line to ventilate.

Bleaching and Coloring Straw Bonnets.

Bleaching.—First, wash the bonnets in warm soap and water. Second, take two tablespoonfuls of sal soda and two quarts of soft warm water; dissolve the soda, then put in the bonnets and let them soak three to five minutes; then put them into the bleach box—put in about a table spoonful of brimstone, and bleach over night; then take them out; then take two quarts of warm water, and one good tablespoonful of oxalic acid; dissolve the acid, soak the bonnets about five minutes in the same, then rinse them in clean warm water and hang them out to sun. Sun them until about half dry, then put them in the bleach, if you have time; if not, dry and size them, and they are ready to press.

Coloring Brown or Drab.—To twelve quarts of water add one teacupful of black tea; heat the water and tea until they boil; then add one teaspoonful of copperas; stir the same one minute or so; then take it off and let it stand about five or ten minutes; then put in the bonnets to be colored drab; such as Neapolitan, chip, rice, straw, or fine Dunstable, that are clear and white, and they will color very quick. All other braids had better be colored brown, and let them remain in the dye some six hours, but look to them, and if they don't take a good color, let them be in until they do. You can color any shade of brown, by giving longer or shorter time in the dye.

Coloring Black.—Take logwood, or the extract, which is better, half a pound of chips or a small quantity of the extract to twelve quarts of water; heat it to boiling; then add one teaspoonful of coppperas; put in the bonnets and boil until black. It generally takes six hours—and if the dye is not strong, it will take longer. Take them out, wash them dry, and brush them.

To Wash Flannel without Shrinking.—Make a strong suds and put in your flannel or white woolen stockings, while the water is boiling hot. Then squeeze and pound them with a pestle till the water is cool enough to put your hands to the work. You will find there is little need of rubbing. Rinse in water as hot as the hands will bear. If there is a little soap remaining in the rinsing water, it is all the better. The sooner they are dried the less they will shrink. This method, from an old housekeeper, is sure to prove just the right way, if strictly followed.—*Plowman.*

French Muffins.—A quart of warm water in which has been dissolved a quarter of a pound of hard yeast, and mixed with sufficient flour to make rather a stiff batter, set it in a warm place four hours, then stir it down and divide it into pieces of a quarter of a pound each, which mould with the hands and put into wooden trays containing a round bed of flour for each; let them stand two hours in a warm place, and cook them upon an iron griddle, turning them over when nicely risen. They will be baked in about ten minutes if the stove is sufficiently hot.

YOUTH'S CORNER.

Trade of the Insects.

Bees are geometricians; their cells are so constructed that, with the least quantity of material, they have the largest sized spaces, and the least possible interstices. The mole is a meteorologist. The bird called the nine-killer is an arethmetician; also the crow, the wild turkey, and some other birds. The torpedo, the ray, and the electric eel, are electricians. The nautilus is a navigator; he raises and lowers his sails, casts and weighs anchor, and performs nautical feats. Whole tribes of birds are musicians. The beaver is an architect, builder and wood-cutter; he cuts down the trees, and builds houses and dams. The marmot is a civil engineer; he does not only build houses, but constructs aqueducts and drains to keep them dry. The ant maintains a reguiar standing army. Wasps are paper manufacturers. Caterpillars are silk spinners. The squirrel is a ferryman; with a chip or a piece of bark for a boat, and his tail for a sail, he crosses a stream. Dogs, wolves, jackals, and many others are hunters. The black bear and heron are fishermen.

The ants are day laborers. The monkey is a rope dancer. Some birds are tailors. Others are weavers.

Little White Lily.

Little white lily
Sat by a stone,
Drooping and waiting,
Till the sun shone.
Little white Lily
Sunshine has fed;
Little white Lily
Is lifting her head.

Little white Lily
Said "It is good;
Little white Lily's
Clothing and food."
Little white Lily,
Drest like a bride,
Shining with whiteness
And crowned beside!

Little white Lily
Droopeth with pain,
Waiting and waiting
For the wet rain.
Little white Lily
Holdeth her cup;
Rain is fast falling
And filling it up.

Little white Lily
Said "Good again,
When I am thirsty
To have a nice rain;
Now I am stronger,
Now I am cool;
Heat cannot burn me,
My veins are so full."

Little white Lily
Smells very sweet;
On her head sunshine,
Rain at her feet.
"Thanks to the sunshine,
Thanks to the rain!
Little white Lily
Is happy again! [MacDonald

Enigmas &c.

Geographical Enigma.—I am composed of 15 letters.

My 9, 8, 5, is a river in Louisiana.

My 3, 8, 14, 5, is a cape on the western coast of Africa.

My 4, 1, 1, is a cape on the coast of Massachusetts.

My 5, 13, 3, 8, 10, is the capital of one of the Middle States.

My 2, 9, 11, 8, is a lake in North America.

My 6, 5, 8, 1, is a town in Arabia.

My 5, 13, 1, is a river in Russia.

My 14, 4, 11, 1, 15, is a lake in British America.

My 10, 13, 13, 7, is a river in Minnesota.

My 12, 13, 9, 1, 11, is a town in Mexico.

My whole is a country celebrated for its mining resources. D. J. L. P.

Madison, Wis.

No. 2.—I am composed of four letters. Leave off my last letter, and you have an article in common use used more by women than men

Leave off my first letter, and you have an article in common use used more by men than women.

My whole is a flower. Annis R. Folsom.

Columbus, Wis.

Puzzle.—In the city of Milan, Italy, there is a great Cathedral, and in this Cathedral a beautiful clock. On each side of this clock stand little wooden boys with mallets in their hands; and every time they hear the clock strike one, they each strike two; when they hear the clock strike two, they each strike one, and so on through the twelve hours. That is, they strike, *alternately*, first one more, then one less than they hear the clock strike each time. How many times will the clock and the mallets together strike in twelve hours?

Conundrum.—What State is round at each end and high in the middle?

Answers.

To Enigma in last No.—"Hoyt and Campbell;" answered by Annis R Folsom, Columbus.

To No. 2.—"Caroline;" answered by Ada R. Simmons, Lodi; A. R. Folsom, Columbus; Harvey, E. M. and F. W. Morris, Thompsonville.

To No. 3.—"Air;" answered by Jerome H. Salisbury, Fitchburg; and A. R. Folsom, Columbus.

To Conundrum.—"Because they both become a woman."

This month our little friends have sent us but few answers. I wonder if it is because not near all their names were credited last time? You must all of you bear in mind that a printing press cannot wait, nor the forms of a magazine, already made up, be made over for items that come in just a little too late. Of course, the next month they are of no interest.

I would really be glad to publish all the

enigmas, puzzles, charades, and answers you send me; but you must be prompt with your answers, and brief, and to the point with new enigmas. Don't send long ones, or those that are pretty much like what we have had, and write your names in very coarse, plain letters. MRS. HOYT.

EDITORIAL MISCELLANY.

The Lateness of this No.

Is due solely to the paper makers, who were some two weeks behind time in filling our order. The first two "forms" were in type before the 10th of the month, so that we were ahead of time.

Our Premiums.

The Premium Strawberry, owing to the dry weather of last season and to the much larger number of orders than we anticipated, is necessarily deficient this spring. It is *utterly impossible* for us to meet the demand, and as the next best thing we must ask those who have not been supplied to wait until autumn. Those delivered have been sent in the order the subscriptions were received by us. This season we shall use our best efforts to produce all the plants that can be grown, so that our next year's subscribers may not be disappointed. We regret this partial failure, but feel that we are in no sense responsible, having done *our very best to keep our promise good.* If by any possibility, a subscriber has been overlooked or swindled by the mails, let him report immediately and we will promptly supply the article ordered, if it is to be had in the country.

The other premiums have all been sent out, carefully packed, and should arrive in prime order, if not delayed by the mails.

The Continental Insurance Company.

Our readers will find in the Advertising Department of this No. an interesting exhibit of the business scheme, official organization, transactions and present condition of that leading American Insurance Company, the Continental of New York. We have long known that this Company was among the foremost of the many now in successful operation in this country, but it is only recently that we have examined its charter and noticed the statistical figures which demonstrate the soundnesss of its policy and the high degree of prosperity it has attained.

The first insurance companies organized were stock companies, and, if we mistake not, a large proportion of those now in operation in European countries are of this class. Wherever they exist, such companies, under proper management, possess this advantage, that, in case of heavy losses, they are able to pay promptly. But to those who are insured they are open to the objection that the profits of the business go to enrich the stockholders, among whom such profits are distributed as rapidly as ascertained, and thus placed beyond the reach of claimants, instead of being retained or laid by to provide against bankruptcy in case of large losses.

To meet the first part of this objection the *Mutual* system was devised, by virtue of which all who purchase insurance of the company based thereon, become members of the company, and sharers in its profits in proportion to the amount of their insurance; thus, while providing against danger to their own property, assuming in part the danger and risk which belong to all others insured in the same company, whether honest or dishonest. But for the fact that, in the event of losses larger than can be met by moneys in the hands of the company, payment must be deferred until an assessment can be made and collected, the mutual system would seem to be faultless.

It was a happy hit, therefore,—that of the mind which first conceived the idea of the "Participating" plan, whereby all the advantages of the stock and the mutual systems were combined, as in the case of the Continental and some others which have shrewdly followed its example. The charter of this Company requires a cash capital of half a million of dollars as a condition precedent to its organization, and wisely provides that *it shall never be less than that amount.* This makes the insured perfectly secure, and insures the

most immediate payment of even the heaviest losses. The charter, unlike that of any full stock company, also requires that the company shall annually divide three-fourths of its net profits to the parties insured in the several states where the business is done; besides which it is obliged to pay all the tax and revenue required of other companies. These items, in addition to the losses and the principal portion of the cost of doing the business, which constitute nearly nine-tenths of the amount of the premiums received, is disbursed within the respective states, to their citizens. These excellent features strongly commend the Company to the favor of all persons wishing to insure.

If now we look at the financial condition of this great Company, we shall find that it has a capital of $500,000 in actual cash, to start with, that the aggregate of its yearly dividends to its customers, in scrip, is already $481,000, and that the total assets of the company on the 1st day of January last were *One million, three hundred and forty-five thousand, three hundred and eighty-six dollars and ninety-two cents!*

Judging from the rapid increase of the Company's business, it is next to absolutely certain that before the making of the next annual dividend, the amount of outstanding scrip will have reached the maximum required by their policies, and so be redeemed in cash, according to the provisions of the chaater, as above recited.

With a system which gives security, promptness and equal profit to all who will avail themselves of its benefits, and with figures like the foregoing, so demonstrative of the soundness of its system in actual practice, we feel authorized in cordially endorsing this great and flourishing Company.

The Directory of the Continental embraces the names of a large number of the solid men of New York. and its officers are gentlemen of acknowledged integrity, ability and experience.

Hitherto the Company has done a large business at the East, but has not made extraordinary efforts to extend its field of operations into the far West—its purpose being to expand its business so rapidly only as prudence and the security of its customers permits. But these stirring times have brought a new stimulus, and, in the full possession of the necessary means and the determination to make it yet more fully in fact what its name implies, they have recently established a General Agency for the Western States, placing at the head thereof Col. G. F. Hastings, late General Agent of the Madison Mutual Insurance Co., and so widely and favorably known to the citizens of this State. Col. Hastings' territory, at present, embraces all of the Western States. We congratulate him on having formed so favorable a business connection, and the Company, also, as being equally fortunate in securing his valuable services.

Mr. A. C. Davis, State Agent for Wisconsin, is already widely known as a thorough and successful business man.

We advise all persons, practically interested in matters of insurance, to carefully examine the advertisement herein referred to.

[ADVERTISEMENT.]

To Citizens of Wisconsin and the Northwest:

INSURE WITH THE MUTUAL LIFE INS. CO. OF WIS.—*It is the best Company for Western men!* The reasons why it is the best Co. are: That it is a Western Company, made up of and managed by western men, doing all or nearly all its business in the Northwest, and concentrating in this one Company a superior class of risks, mostly of young men, or men in the prime of life, and they selected with as great care in regard to eligibility to Life Insurance, as are the risks of any other company.

It is true that the Company have neither the age or accumulations of some of the Eastern companies, but is gaining both very fast; is vigorous for one of its age, is doing a large business, having issued 337 policies in the month of December just passed. It is doing its business as economical as the same can be done anywhere, having for its guide the experience of all older companies, and among its managers some of the best business men in the Northwest.

It has thus far made none but safe investments, and has paid all losses promptly, and we cannot see why the probabilities of the future may not be identified with that of the Great Northwest. This is the first successful effort ever made to build up a similar institution in the West, and should be the pride, as it certainly is the interest of every business man in this section of the States to identify himself with its growth.

This Company issues nonforfeiting policies, upon which the whole life premiums are paid in five or in ten annual payments, also the endowment policies, which become due and payable to the party insured upon his attaining a given age, or to his heirs at his death, should he die before attaining the specified age.

OFFICERS.

S. S. DAGGETT, Pres. JAS. BONNELL, V. Pres,
C. D. NASH, Treasurer. A. W. KELLOGG, Sec'y.
E. B. WOLCOTT, Con. Physician.

S. S. Daggett, Jas. Bonnell, John H. Van Dyke, H. L. Palmer, Chas. F. Ilsley. *Executive Committee.*

H. G. WILSON, Gen. Agent.
J. G. McKINDLEY Ass't Gen'l Agent.
Office No. 14, Wisconsin St., Milwaukee.

M. D. MILLER, Agent, Madison.

E. SPRAGUE, Traveling Agent for Central Wis.

January 15, 1864. aptf

NOTICES OF NEW ADVERTISEMENTS.

THE CONTINENTAL INSURANCE CO.'s advertisement is elsewhere noticed. See and read.

RANDALL'S GREAT SHEEP BOOK is advertised in this No. We have received a copy and are prepared to give it a most cordial endorsement. It is unquestionably the best work on practical sheep husbandry hitherto published in any country. It is profusely and beautifully illustrated, and the mechanical execution is remarkably good. Let every farmer who pretends to keep sheep send his $1.50 to D. D. T. Moore, publisher, Rochester, N. Y., and procure a copy at once.

See also Mr. Moore's advertisement of the *Rural New Yorker*—one of the best farmer's family papers in the country. Likewise the advertisement of A Manual of Flax Culture, &c. A valuable book. Price only 25 cents.

THE ROCK RIVER IRON WORKS CO., of Janesville, advertise Threshing machines and Sugar Cane Mills. Their machinery has the reputation of being of the very best sort, and we feel warranted in strongly endorsing them.

K. P. KIDDER'S Compound Movable Comb Hive appears to be gaining a wide popularity. We like the construction of the hive very much, and think that it merits the popularity it enjoys. See advertisement.

MADISON SEED, GROCERY AND PROVISION STORE.—See Huntley & Steensland's advertisement. They keep a large stock of articles of the best quality and at the lowest prices, and being straight forward, reliable men, deserve the large patronage they enjoy.

THE NEW YORK SELF-RAKING REAPER AND MOWER, advertised by S. L. Sheldon & Bro., with illustration on cover, is the result of a combination of the best points of the Seymour & Morgan Reaper and Mower with the best of Palmer & Williams'. Each of these machines was popular singly, and, now that they are combined, it is believed that they constitute a self-raking reaper and mower that has no superior in the world. Strength, durability, ease of draft and management, adjustability and efficiency are justly claimed as characteristic features. It has taken prizes in competition with other machines in nearly all the grain-growing states, and last year took the Great Silver Medal at the International Agricultural Fair, at Hamburg, Germany.

FISHER & REYNOLDS, leading manufacturers and dealers in Cabinet Ware of all sorts, at Madison, are advertised in this No. Fair dealers, with a good stock always on hand.

THE QUAKER REAPER AND MOWER is advertised in this No. anew by Tabers & Co., Salem, O. This machine is popular in Ohio, and it possesses many points which should recommend it for use everywhere.

SEE Advertisement of Westcott's Churn and Butter Worker. Sherwin & Co. have it on exhibition at the office of M. E. Fuller & Co., on King street, Madison.

[Advertisement.]

SPECIAL PREMIUM.

Believing the Sorghum interest to be a great and important one to this State and the Northwest, and wishing to do what we can to develope it, we offer the following premium to all, who are disposed to compete for it, in the State.

For the best twenty-five acres of cane grown in the same neighborhood, by one or more parties,

A complete set of our most improved *Two Horse Separate, Geared Sorghum Machinery*, with Bagasse carrier, evaporator, heater, smoke pipe, skimmers, and all the fixtures complete for setting up and operating, worth at the shop $260, cash, and capable of making from 150 to 200 gallons of syrup per day.

Parties proposing to compete for the foregoing premium will need to send to me for entry blanks and circular of instructions, &c. The earlier attended to the better.

D. J. POWERS.

Madison, Wis., Feb. 20, 1864.

WESTCOTT'S

CHURN AND BUTTER WORKER!

Patented April 29, 1863.

WE have obtained the right of manufacture and sale of the above churn for this State, and we present it to the public confident of its possessing features entirely new and of such practical utility as necessarily give it a superiority over any churn hitherto invented.

We are now prepared to show by practical exhibition—

First That it will churn cream or sweet milk in from two to six minutes.

Second, That it will gather the butter and work it over in about the same length of time, by simply reversing the motion.

Third, That it will make as good butter in the above named time as if the process of churning was continued for one hour or even more.

Fourth. We combine all these qualities in a churn at one cheap, simple and durable, and free from metallic substances inside the churn.

In speaking thus confidently of the advantages of this churn, we invite all those who either use or are in any way interested in such an article, to witness our practical exhibitions, either with cream or milk, and see if these things be so.

We are now prepared to furnish at short notice the above mentioned churn, at wholesale or retail, and invite all those wishing an article of the kind to give us a call at the office of M. E. Fuller & Co., on King street.

A. SHERWIN & Co.

Madison, Wis., May 2, 1864.

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, JUNE 1, 1864. No. 6.

"Are we to have a State Fair this Year?"

Thanks to the enterprising citizens of Rock County, we are, at last, able to answer this oft repeated question with such definiteness as will warrant immediate action on the part of all the friends of Industry in this State.

Yes, we *are* to have a State Fair once more in Wisconsin. It was announced in the March number of this journal that the Executive Committee of the State Agricultural Society had determined to hold a Fair somewhere, during the last week of September—provided the people of any suitable locality would offer sufficient inducements—and that a Premium List had been prepared and would be printed and issued, just so soon as the question of locality should have been fully determined. Since that time, urgent appeals, by letter, by editorials, and in person, have been made to the people of the whole State, and especially of certain cities where it was believed a Fair could be most successfully held, but owing to an apathy which it seems difficult to explain, and which can hardly be explained at all upon grounds very complimentary to the enterprise of the citizens of Wisconsin, when the May number of the FARMER was issued we were so utterly at a loss what to say, that we said nothing whatever on the subject.

Leading citizens of Janesville and Rock County now tell us that we must by all means have an Exhibition somewhere, and that they will take the responsibility of accepting the terms proposed by the officers of the Society. This looks so much like a certainty that we feel disposed to regard it, now, as definitely settled that we are to have a State Fair, and that it will be held at Janesville.

A better point could not have been selected. Janesville is one of our most flourishing towns, is readily accessible by railroad from all parts of the State and adjoining States, has ample and excellent hotel accommodations, and a liberal people, able and willing to extend to the great Fair-going public all the hospitality required for the occasion.

Most of the other Northern and Western States have had successful exhibitions annually since the war commenced, and Wisconsin, whose territory is really the most remote from danger, and, therefore, better able to go uninterruptedly forward with all her industrial enterprises, ought to be ashamed to excuse herself from giving these important interests any special attention on the ground of "the agitated condition of the country." What if the country is agitated? What if there is in progress a war such as the world has seldom if ever seen? Shall we who remain at home—who go not ourselves in armor to battle against the enemies of the Republic—shall we fail to do everything in our power to advance the interests of that Industry on which our success in the prosecution of the war, and our ability, as a nation, to pay off the enormous debt that is piling up against us, so essentially depends?

A good general deems it a matter of just as much importance to have some ammunition

and supply trains, as to have men. And are not all these the product of Industry? The truth is, in a struggle like this, the *whole people* should consider themselves members of the Grand Army. We who are farmers, mechanics, manufacturers and merchants, must look to the supplies—must furnish, in a word, the *materiel* of the war; yes, and pay the soldiers who do the work of fighting down the rebellion. The responsibilities of the commissary, quartermaster's and paymaster's departments are upon our shoulders. Therefore it is that we insist that it is our bounden duty to encourage every agency whose office it is to so inform and stimulate the industry of our State and country as that it shall be able to yield the largest results possible. It is the office of Industrial Exhibitions, whether of town, county, State or Nation, to both inform and stimulate, and this is why we should be determined to keep them up, and make them largely successful.

The farmers have never been in a better condition, since the date of our first residence in Wisconsin, than they are to-day. Successive years of abundant harvests, and better market than formerly, have enabled them to pay off their debts and to plant their feet on the highway of prosperity; while mechanics of almost every sort, manufacturers and merchants, have been doing still better. By the last week of September the farmers' most pressing work for the season will have been done, and he will feel the need of the recreation and advantage to be derived from the Exhibition. There is no good reason, therefore, why the State Fair of 1864 should not be a great success. Let every friend of the prosperity of Wisconsin begin now to do everything in his power to make it so.

Beans as a Field Crop.

Beans have been in great demand since the war has been in progress, and command high prices, and at all times they are most valuable as food for man and beast. Bean meal is said to be the very best food for milch cows. Speaking of the cultivation of the white bean, the late Judge Buel wrote thus:

"They are a valuable crop, and with good care are as profitable as a wheat crop. They leave the soil in good tilth. I cultivated beans the last year in three different ways, viz: in hills, in drills, and sowed broadcast. I need not describe the first, which is a well known process. I had an acre in drills which was the best crop I ever saw. My management was this: On the acre of light ground, where the clover had been frozen out the preceding winter, I spread eight loads of long manure, and immediatety plowed and harrowed the ground. Drills or furrows were then made with a light plow, at the distance of two and a half feet, and the beans thrown along the furrows about the 25th of May, by the hand, at the rate of at least a bushel to the acre. I then guaged a double mold-board plow, which was passed once between the rows, and was followed by a light one-horse roller, which flattened the ridges. The crop was twice cleaned of weeds by the hoe, but not earthed. The produce was more than forty-eight bushels by actual measurement."

Farm Work for June.

The crops, of course, are mostly in; though the sowing of Hungarian grass, turnips, &c., is yet to come. The great business of this month is simply to take good care of the crops already growing. Of this work we need simply to say, *poor culture poorly pays, and, of course, makes those poor who unwisely practice it.* Make thorough work of stirring the soil and rooting up the weeds. A better way is, not to let the weeds get their heads fairly above the ground. If once they get the start, they'll be pretty likely to keep ahead of you. As soon as the corn makes the rows visible, and potatoes begin to peep through the crust of the soil, a light cultivator should be put through. You will thus have got the start of the weeds, and will find it easy to keep it.

Hungarian grass, if sown at all, should be put in between the 1st and the 10th. Some farmers think well of it, but we think the mania for it, which had a general run through the State in 1856–58, has pretty much subsided.

One thing we would enjoin in relation to the cutting of grass and grain: Make ready to do it in season—before those crops are dead

ripe, as is the custom of too many farmers. Grass cut before ripening is sweeter and more nutritious, and wheat cut while the berry is yet in the doughy state makes better flour; besides which, by the earliest possible cutting, you may escape the lodging, rusting and blasting by insects, which sometimes befall crops of this kind even in their last stages of maturing.

STOCK.—Take good care of the mares with foal. If you work them, see that they are gently used, and properly cared for at night. The foaling is liable to occur before you anticipate it. Don't let that important event find the distressed animal in a close box stall or anywhere else but in the pasture or quiet barnyard. Nor fail to look after her closely, as she may need your assistance in giving birth to her offspring. All this caution might more properly have been given last month, but then it will not come too late for all, and will only be needed by farmers new in the business.

Sheep-washing, where practiced, comes in order this month. Use, if possible, clean, *running* water. Select a sunny day, and keep them compactly herded together upon clean grass or straw until their fleeces are dry. In this way you will keep your wool clean, and the sheep will be less liable to take cold.

For orchard and garden hints, see Horticultural Department.

Chufas for Coffee.

FRIEND HOYT:—I have something more to say in regard to the cultivation of Chufa. You remember I gave you my last year's experience in sandy land, and formerly on prairie. This year we plowed up an old chip yard. The soil was yellow sand, enriched by the chip manure. We planted as much again ground as last year, with no better yield. The black sand produces better than any soil we have tried. This is our experience.

People are slow to take up any new substitute. I wish I could impress upon the minds of farmers that chufa is a good substitute for coffee. We have multiplied it for a substitute for the chestnut, but have never tried it for coffee until last fall. I thought to test it while we had our threshers. We had fifteen hands, and they all pronounced it a capital substitute. Some said they liked the chufa best. It takes more for a drawing than coffee, but it has body and is rich, being much better than the ground coffee you buy. We shall, this year, cultivate them more extensively than ever before. N. M.

LODI, Wis.

Neat Husbandry.

[The following sensible communication arrived too late for insertion in the May No., and even our reference to its contents, designed for the Editorial Miscellany, was crowded out, with much else, by a press of advertisements. How in the world the recommendation to mix oats with wheat escaped our notice and criticism, we can only account for on the ground of unusually full occupation with matters outside of the FARMER when the manuscript and proof passed the ordeal of the Editorial office A thorough and neat system of husbandry has always been urged by us, both in the FARMER and before the people in agricultural addresses, and we very much regret that an article, which, however well intended, did, nevertheless, give a sort of license to slovenly farming should have found its way to the public through the medium of this journal, without proper comment.]

In the April No. of the WIS. FARMER I notice a correspondent recommends sowing wheat with oats. Your paper is looked upon by many readers as a standard of authority upon the subjects to which its columns are devoted; and I therefore desire to call your attention to your correspondent's remarks, that you may support them, if they are entitled to support, by the arguments which are to establish the correctness of his recommendations; or, if erroneous, to point out to your readers the damaging advice which he gives.

At least six out of every ten loads of oats that are brought into market in southern Wis-

If you will look at the printed circulars of the Chicago and other Boards of Trade, you will notice that all oats having in them a mixture of any other grain, are to be graded No. 2. Thus your correspondent, who prides himself on his agricultural skill, would receive in the Chicago market, at the present writing, but 61@61½c for his oats having in them an admixture of wheat, while his more judicious neighbor, sending his clean and unmixed oats to the same market, could realize 65@66, with quicker sales and better feeling.

Hence the question arises, whether these several Boards of Trade find, in the main, a difference of 4 to 5 cents a bushel in the *bona fide* value between clean oats and those having some other description of grain in them; or are they governed by mere arbitrariness and caprice? But these associations cannot be governed by arbitrariness or caprice, for the moment they depart from a standard of integrity and honor in their transactions, their influence and the force of their rules and decisions become no more than ropes of sand.

Now we will take another view of the case, and we shall see that no single buyer, no association of buyers or Board of Trade, can do anything to govern these matters except to give sanction to established fact, and uniformity to what must of necessity be, in the main, the usage of business. For instance, Chicago, (and the same remark applies to other places) is a free market, and any individual who chooses to buy can buy what he chooses and where he chooses. In all these commercial places are to be found men with means and ability to operate in grain, and if oats, having some other description of grain in them were worth —I will not say more—but as much as pure oats, buyers would soon neglect No. 1 oats, and buy only No. 2; which they could readily get at 4 to 5 cents a bushel below the price of No. 1. Competition would soon advance the price of No. 2 oats to the price of No. 1, and the distinction would be obliterated. The decisions of the Board of Trade would be as impotent as the Pope's Bull against the comet.

Farmers coming to market with wheat having oats in it, usually claim that their oat bins have bursted, or that by some *hocus pocus* they got mixed on the barn floor. If it is oats they bring, with wheat in it, the bins have taken a reverse action, and spilled the wheat into the oats. Indeed, you must conclude their barns are continually oscillating from side to side, and never standing within forty-five degrees of the perpendicular. But if we come at the facts of the case I apprehend, in some cases, it will be found that the chess box of the fanning mill has been oscillating instead of the barn, but that, in most cases, mixtures of grain are due to slovenly farming. If "the enemy had sown tares while the husbandman slept," there might be some justification offered; but, unfortunately for the credit of a majority of Wisconsin farmers, they have no such excuse, for they have sown them themselves.

I believe every intelligent farmer will agree with the writer in the importance of keeping every description of produce free from any mixture with a different variety or description of product. For the want of an observance of this rule, many thousands of dollars are annually wasted in this State alone.

Nothing is more common than to witness a load of potatoes brought to market mixed red and white. If the farmers who bring these potatoes to market, mixed in this manner, were to plant the different varieties in separate places, the red potatoes would bring as much per bushel as could be realized for the red and white mixed, but for the white potatoes they could get in all the leading markets 10 to 15 cents a bushel more than could be obtained for the red or red and white mixed.

It might not prove damaging to the general credit or material interests of Wisconsin farmers, if they were even to take a step further and only plant such varieties as the Jersey Peach Blows, Prince Albert, or Mercer potatoes, which bring 20 to 25 cents a bushel more than any of the common varieties. But I believe I need to adduce no arguments to prove the damaging effects to the agricultural

interests of the State resulting from a general mixture of grains and other products.

If your journal, having a wide circulation and influence throughout the State, can, by argument or remonstrance, induce a more tidy system of agriculture, it will have done a great service to the people of Wisconsin.

M.

Central and South America at the World's Fair.

'Round and 'round the world have we been in our inspection of the products of the industry of its many nations. Several times it has seemed that we must have completed our journeyings. Not so. There remains a vast continent and more yet untouched. A most interesting portion of the globe it is, too, —semi-enlightened, socially and politically, yet vast and varied in its resources and full of rich promise for the more or less distant future. As here represented in the well filled courts of Costa Rica, Venzuela, Brazil, Peru and Urugua, it would seem to demand a much longer time than we shall be able to give to it. It does, indeed, but circumstances compel us to make short work of these sever al nations.

CENTRAL AMERICA---

That cluster of republics peopled by strangely composite races, and, as yet, only half way on the road to established nationality, is represented by Costa Rica alone. A little republic, 80 miles wide and less than 200 long, shut in east and west by the waters of the sea, and containing a population, wild Indians included, about twice that of Milwaukee. Let us see what they have sent to this great gathering of the nations.

Mahogany, Brazil wood, cedar, coffee, sugar, tobacco, pearls, pearl shells, gold and coal,—these are chief; and a fine collection they are too. Perhaps the coffee and mahogany are, more strictly speaking, representative products than any other. The coal was sent by a New York mining company! from which it will appear that the universal, omnipresent Yankee has not overlooked this little strip of territory.

The eastern portion of Costa Rica, except along the Caribbean Sea where it is low and marshy, consists of elevated plains, some two thousand feet above the level of the sea; the western portion is mountainous and volcanic; some of the mountain peaks reach an elevation of over 11,000 feet. The climate is considered more regular and salubrious than that of most of the Central American States; the soil is quite fertile, and the people have now enjoyed tranquility for many years.

If these petty republics would only consolidate into one grand republic, on the basis of the United States of North America, they might become one of the *powers* of the world. Some day—probably soon after we shall have demonstrated the stability of our own government—they will do it. God speed the day.

REPUBLIC OF VENZUELA.

Here we touch the great South American continent, and in one of the most varied, fertile and really magnificent parts. A republic of some magnitude—nearly a thousand miles long and over five hundred miles wide, with an area about equal to eight states like Wisconsin; population over one and a half millions, including creoles (of European descent), mestizoes, mulattoes, zamboes and other mixed races. The Oronoco, one of the great rivers of the world, courses directly through its centre and contributes, by its own waters and those of a number of large tributaries, to make it a country of considerable agricultural importance, and would seem to insure to it a future commercial greatness. Along the northern border, on the Caribbean Sea, runs the Coast chain of mountains; on the south are the mountains of Panina, and on the west are the mighty Andes, lifting their heads far above the lower limit of perpetual snow; while, gathered from all these chains, the swelling grand river pours its flood of waters into the Atlantic Ocean. A country of large capabilities, but, as yet, but little developed.

The coffee, cotton, tobacco, indigo, cochineal, sugar and cocoa, fitly represent its agricul-

Manufactures are said to have made but little progress, and almost everything requiring machinery for its making, is imported. The rude articles of various sorts made by the untutored mestizoes and zamboes show this to be true.

The pearl fisheries, once of considerable importance, have been pretty much abandoned, as have also the mines of gold and silver. Copper still holds a place of some importance in the list of her industries. The tropical plants, febrifuge barks, various drugs and some varieties of wood illustrate its flora.

THE BRAZILIAN COURT

Comes next in order. By a singular juxtaposition it stands side by side with that of Greece. Hardly any two countries contrast more widely. The one narrow and pent up by the sea, but yet once among the most powerful and, beyond all question, the most enlightened nation on the globe; the other a vast empire, scarcely less in magnitude than the whole known world when Greece was in her palmiest days, traversed by several chains of lofty mountains, watered by the greatest rivers of the world, and still, for the most part, in the wildness of her primeval state. In Greece everything is in miniature; in Brazil everything is on a scale of unexampled grandeur. The vegetable and the animal worlds are there represented as scarcely anywhere else on the globe; and even the elements seem to exert themselves there more grandly. Indeed, everything is on so magnificent a scale that man is overmatched and confounded. Agriculture is thwarted by impassible forests, and the harvests are destroyed by innumerable insects. The forests and jungles are filled with ferocious beasts that defy the power of man. The mountains are too high to scale and the rivers are too wide to bridge. In the language of Buckle, "Nature seems to riot in the wantonness of power. A great part of this immense country—nearly as large as the whole of Europe—is covered with dense and tangled forests, whose noble trees, blossoming in unrivalled beauty, and exquisite with a thousand hues, throw out their produce in endless prodigality. On their summit are perched birds of gorgeous plumage, which nestle in their dark and lofty recesses. Below, their base and trunks are covered with brushwood, creeping plants, innumerable parasites, all swarming with life. There, too, are myriads of insects of every variety; reptiles of strange and singular form; serpents and lizards, spotted with deadly beauty. And that nothing may be wanting to that land of marvels, the forests are skirted by numerous meadows, which, reeking with heat and moisture, supply nourishment to countless herds of wild cattle, that browse and fatten on their herbage; while the adjoining plains, rich in another form of life, the chosen abode of the subtlest and most ferocious animals, which prey on each other, but which it might almost seem no human power can hope to extirpate. Such is the flow and abundance of life by which Brazil is marked above all the other countries of the earth."

But does any one living in this wonderfully progressive present doubt that the time will come when the arts and sciences will have given to man the power of conquest over this great empire? When that day shall have come—when the Anglo-Saxon race, or a better race still, compounded of this with others, shall have entered upon and possessed—then Brazil will have a commanding place among the great nations. At present, her population, all told, scarcely exceeds six millions, of whom the majority are in a semi-civilized state.

This beautiful court shows, however, that civilization is there, and the beginning of that great nation to be is already made. No court in the Exhibition Palace presents so interesting a collection of seeds, especially of beans and the leguminous plants generally. Wool is also here; tobacco, wheat and the other cereals, manufactured articles, including cloths, cotton, silk and linen fabrics, hats, boots, saddlery, and much else. Most of these were probably made by European or American hands. Gold, silver and diamonds also, the

last named being especially representative of Brazil, which has furnished more diamonds to the world than all other countries put together.

PERU AND URUGUA

Are but scantily represented. The name of Peru was once synonomous with a lavish wealth of silver and gold, and just Americans may be disposed to patiently consider its claims to favor. But since the comparative exhaustion of its mines, it is chiefly interesting for the remarkable and dazzling history it has had as the greatest and most civilized of the South American States at a date anterior to the discovery of that continent in the 15th century. To the Agricultural world it possesses some interest on account of the guano it exports to all parts of the world. Neither of these countries seem to possess the elements of permanent greatness. The governments of both are republican, and it is probable that in the more favorable future they may attain to a respectable position among the lesser nations of the world. But here, as in the case of Brazil and of all the South American States, there must be an infusion of better blood. The poor representatives of an effete semi-civilization will never accomplish it.

[From the Ohio Farmer.

Cultivation of Onions.

BY AN OLD MARKET GARDENER.

A subscriber to the Ohio *Farmer* wants to be informed about the cultivation of the onion.

SOIL.

The best soil for the onion is a black and dry sandy loam, with an eastern or southern exposure. If it was well manured last year, all the better. If not, apply well rotted manure bountifully. Land cannot be too rich for onions.

PREPARING THE GROUND.

We prepare our land and plant as follows; Strike out lands sixteen steps or forty-eight feet wide; throw three furrows together in the centre, thus forming a ridge. Next rake, (with a common garden rake,) the suface of this ridge smooth and nice, allowing the clods and other rubbish to remain in the furrow. Go two more rounds, or "horts" as the Yankees say, raking as before; so continue till all your land is plowed and raked finely. You now have a nice mellow surface, without the mark of a hoof upon it.

LAYING OUT AND PLANTING.

We now use a marker with iron or wooden pins 1½ inches broad, set in head of marker, fourteen inches asunder, and containing four rows of teeth. Stretch a line across your bed and draw the marker straight across it, thus making four rows. Draw it back and forth with one end tooth or pin in the last mark, and so continue till you have gone over the bed. Now plant your seeds or small onions in these marks, from three to five inches apart. If you wish a large crop, plant closely, if fine specimens, give more room.

CULTIVATE THOROUGHLY.

Suffer not a weed to grow. To do this, don't wait for the weeds to show themselves—they are just as effectually killed by stirring the land when only sprouted as after they make their appearance, and with about one-fourth of the labor. A top dressing of wood ashes after the last hoeing will often increase the crop from one-fourth to one-half.

Onions should be gathered, dried and spread under shelter, not more than twelve inches thick, as soon as they are well ripened.

Take time by the forelock. Manure well; plant as early as the land can be worked; tend well; gather as soon as ripe, and you cannot well fail of having a good—nay, a large crop. G. S. INNIS.

What shall be done with our Surplus of Straw?

MR. EDITOR:—You solicit communications from your subscribers on agricultural subjects. There is one subject I would like to have discussed in the FARMER more thoroughly. The barbarous practice of burning straw I think you have done justice to. Now, how can we dispose of our straw to best advantage? and what is the best method af applying manure?

It is not always convenient to stack our wheat and other grain so that we can feed all the straw to cattle. I have observed the effect of manure applied in all ways, and have come to the conclusion that the nearer we follow nature the more successful we shall be in all our farming operations. No where in nature do we see fertilizers turned under the soil. They are all applied to the surface. I have seen the best barnyard manure plowed in, when side by side in the same field, where

there was no manure, the crops were equally good, and ever after I could see little or no difference. This, remember, was where the manure was thoroughly plowed in and covered deep. On the other hand, I have seen the best results from spreading dry straw on the surface, on all cultivated crops as well as grass. While living in New York State, some thirty-five years ago, I practiced according to Judge Buel, who advocated plowing in manure. An old uncle of mine said that I would receive as much benefit from the manure to throw it into the Mohawk as by plowing it in as I was doing. I only manured a part of the field, and I never saw any difference in the two pieces.

I have practiced manuring on the surface since, let my manure be fine or coarse, and I find it improves my land at least 75 per cent. more than when I plowed it in. Some are afraid of evaporation if they apply to the surface. Now those that believe ammonia is so essential to crops should devise some means to save it. I, for one, do not swallow the ammonia theory.

How happens it that our prairies that have been burned over for, perhaps, a thousand years have not become barren wastes, when nothing but the ashes from the burned vegetation has been returned to the soil? Nitrogen, hydrogen and carbon are always applied to the surface and evaporate into the atmosphere where vegetation is not burned, and then it certainly is. You will probably ask, why not burn everything used as manure and apply the ashes. I will answer. When we plow the soil and turn it up, we deprive it of its natural covering and leave it exposed to the drying influence of the sun and air, which must necessarily deprive it of its fertility, especially in a dry season. The straw gives it the covering again. Who has not observed that land, covered with vegetable matter one season, would yield an abundant crop the next, yes, and for years after?

I think if we were in the habit of spreading our straw on our wheat after sowing, we should get a better crop the same season, and our land would improve in fertility yearly. Certainly crops thus treated would not suffer from drouth as they do when the naked soil is exposed to the drying influence of the hot sun and winds.

Furthermore, I contend that the fertilizing matter (mineral) is returned, except what is in the berry of the grain. I am aware that I am advocating an unpopular theory. While Liebig advocated the ammonia theory he was the great lion among farmers; but as soon as he changed his theory and advocated the mineral, he was scouted by almost every writer on agriculture. But I confess that I am so stupid that I cannot see wherein ammonia benefits the growing crop. I can see nothing in urine but the salts and minerals that benefits any kind of crop.

If you consider this worth publishing in your valuable paper, I hope it will get up a discussion that I may learn something from, if I am wrong. JOSEPH COMBS.

RIPON, WIS.

Thank you, friend Combs You talk well, and will, no doubt, be answered by half a dozen contributors. When all have had their say, we will sum up the arguments and again give our opinion with the scientific reasons therefor —EDITOR.

Treatment of Kicking Cows.

A correspondent of the *Agriculturist* says: "The following treatment, which I have tried for some years, has never failed to stop the evil: Put a strap round the cow, just in front of the bag, and buckle it rather tight. If the cow tries to kick, draw the strap a little tighter. She will never get used to it and it never does any injury. She will keep on eating as usual, but has no inclination to lift her feet, even to walk about"

This may answer the purpose; the experiment is easily tried.—*Md. Farmer and Mech.*

In witness whereof, we hereby testify to having tried the above successfully, years ago, upon a three year old heifer. It is a sure "pop" every time.—*Ed. N. H. Jour. of Ag.*

We tried it this fall upon a two year old heifer, and it worked like a charm.—*Editor Ploughman.*

Wool Matters that need righting.

FRIEND HOYT:—I have not forgotten my promise to you, yet I have been detained in one way and another, and have not given the subject the attention which it demanded; and in truth the people of Wisconsin are very slow to learn facts, but ready to adopt any amount of theories.

The Wool trade has occupied my attention more or less for the last ten years in this State, and I am sorry to state that the grower and manufacturer are as far apart to-day as when I first took hold of purchasing wool. The manufacturer keeps away, and allows speculators to occupy the ground; and if the speculator would only act wisely in the matter it would not be so bad, but they put inexperienced men in the field and tell them to purchase wool at 40 to 50 cents per pound. Now they want the commission, and they go on and buy, and, instead of paying every man according to the quality and condition of his wool, they often pay all alike. For example; here is Mr. A., a careful farmer, right in all his plans and arrangements, and who has a pride in doing everything he does on and about his farm in the best possible manner; his sheep are taken the best care of; before washing, they are all well tagged, and when washed they are taken to a clear running stream and thoroughly washed. They are only allowed to run in a clean pasture a proper time until sheared, and when sheared, every lock that is in any way unfit for market is clipped and taken from the fleece. The tag locks are washed and kept separate. The fleeces are done up in the best possible way, with as little twine as possible, and kept ready for market with all care and protection.

Mr. B. is quite another man; he is bound to get the best price he can, but takes no pains whatever with his sheep and wool. Says he to himself, if I can sell my wool to some one who don't know much about wool, and get nearly as much as Mr. A., I can beat him a long way, for my sheep were never tagged, at all, for I took my sheep to the pond, and some of them only run through it, and some jumped out and were never washed at all. Yet I can get as much for it as my neighbor A., who has taken all the pains with his, so that when he gets 50 cents for clean wool, I get 50 cents for manure and dirt.

Mr. A. sees and knows this, and the consequence is, that next year, he exclaims: it is no use for me to take pains with my wool, as neighbor B. gets as much for his dirty wool as I do for my clean. I will do as neighbor B. does, until my wool can be appreciated and cared for.

This is no fancy sketch, but plain facts, and buyers have been placed in the market who could not tell washed from unwashed wool, if they got the entire sample.

From these evils Wisconsin wools have been despised and not sought after by manufacturers. Farmers have sought to get their wool heavy, and the sole aim has been by many to make the fleece weigh, let the condition take care of itself.

I have endeavored to persuade the manufacturers that it was for their interest to come into direct contact with the grower, assist them by counsel and advice how they wanted the wool done up and cared for, and pay every man according to the quality and condition of his wool. And, by so doing, they could afford to pay even 15 cents a pound for wool done up, and well washed and cared for as it should be, over and above even wool of the same grade, that was not well washed, and in bad condition.

The manufacturers will take hold of this matter, and the day is not far distant when clean, light and fine wools will be sought and bought, and these distinctions made.

I would advise farmers, therefore, to adopt the rule to take good care of their wool, keep out all tags and clippings, and save them by themselves, and when they sell to have them go with the wool and at the same price, and sell to those buyers who will pay according to

At another time, if any of your readers are pleased with these hasty remarks, I will give a statement on foreign wools in comparison with ours, and any general information in my power. M. SELLERS.

WAUKESHA, Wis.

Sugar Cane—Soaking the Seed.

[The following article came to hand after the agricultural "form" of the May number had been printed, and is now, therefore, a little late for the season. It will, nevertheless, pay to read it.]

EDITOR FARMER:—Presuming apologies unnecessary, allow me to drop you a few lines on the Sugar Cane or Sorghum subject.

I notice your Convention recommended to plant the seed dry. I agree with them that it is better to plant the seed dry than to soak it. Now, Mr. Editor allow me to protest against that word *soak* in connection with any agricultural article, unless it is in reference to taking the soak out of low land. That word must have been invented for a temperance lecture. Any way, I consider too much soaking is as sure death to sorghum seed as it is to the inebriate.

I am in favor of forcing or sprouting sorghum, and many other kinds of seeds, but soaking, beyond dampening and slightly softening the seed, will not forward the sprouting. You must have warmth, moisture and some air—the more uniform the better—to produce germination. Plant too deep—particularly small seed—and it never comes up, for the reason, I suppose, that the air is excluded.

I noticed a valuable article on the subject of Seeds, in the April number of the FARMER, by J. C. Plumb. His plan of sprouting seed in a bag of bran is good, if the quantity of seed is small, and the bag of bran not too large—an objection not likely to happen this year.

I noticed an article on this subject, about a month ago, in the Madison *Journal*, by F. C. Curtis, which accords with my experience. I have usually taken not less than four quarts of seed in a bag, immersed it in water, about scalding hot, for a few seconds, aired, and dipped again alternately for a few times, until it got pretty well warmed up and moistened; then I wrapped it in damp cloths and kept it in a warm place near the stove until it sprouts, which usually takes place in 30 to 50 hours. An occasional sprinkling of water is necessary to keep up a supply of moisture.

A neighbor tells me that he kept part of his seed dampened 24 hours with a solution of water and a little chloride of lime, that there was no perceptible difference between it and dry seed in coming up and general appearance of growth, but the cane from the dampened seed was fully two weeks ahead of the other in ripening. This was the little black Imphee variety, which usually comes up much quicker than Sorghum; hence it is not so important to sprout it. One object in sprouting is to advance its growth, but the main object is to get it out of the ground ahead of the weeds. Nine out of ten unacquainted with growing sorghum will tell you their seed did not come up. Examine the cause, and you may find that they have planted too deep, or more likely you will find the slow growing sorghum and the fast growing pigeon grass blended into one.

My advice is for communities to club together to grow from 20 to 30 acres of sorghum. Get two pounds of good seed per acre. Get the most careful man of the club to sprout it. Just so soon as the germination is discernible, distribute it to the members of the club. Fresh plow, harrow well, mark light, plant shallow in damp earth—three-fourths of an inch in light soils may be allowed, half an inch in heavier soils, and one quarter of an inch in clay soils—hand hoe as soon as it gets well up, after which good corn culture is all that is required. A good season, good culture and good land will produce good cane, which, properly worked up, will produce good syrup worth now $1 per gallon. Don't trouble yourselves about getting it worked up, particularly if raised in clubs, as above recommended. Any energetic man, with a good

span of horses, can clear from $400 to $800 on the job at the halves, and the growers of the cane from $40 to $100 per acre.

Try it, brother farmers, and I am sure you will not regret it—particularly the club that takes the $260 premium offered by D. J. Powers.

CHAS. D. SMITH.

SPRINGVALE, Wis.

STOCK REGISTER.

Salt for Stock.

ED. FARMER:—I have carefully read your extracts from Dr. Tression's Prize Essay on the importance of salt for cattle, given on pages 102 and 103 of the March number, and I am not able to find satisfactory evidence of the correctness of his position, either in the partial reports of experiments made on animals, in his reasonings, or in the nature and effects of salt, that it is essential, artificially, to prevent disease or preserve health.

Action and reaction being equal, it is one thing to show that salt stimulates, and quite another to prove that it also sustains. Failing to show this, there is nothing gained, and something lost. It being more reasonable to suppose it is the *food* that sustains life and health, where is the consistency or necessity of stimulating appetite and digestion, if nothing hard to digest is fed, like the oil cake mentioned, until it is first shown that the natural appetite and digestion are insufficient for health? To prove by feeding or not feeding that salt is essential to health, other conditions must be equal. This is not shown.

The report of the three years' experiment on sheep, however true, as far as it goes, looks partial; certainly it is incomplete in several essential particulars, and, therefore, unreliable for so important a purpose as he presents it. He does not say whether these three "selections" were made with any fairness as to age, previous and present conditions of health, and flesh, or whether their food, shelter, medical treatment, if any, &c., was alike in all respects, except the salting, during the three years. All of these facts are equally as important to know, as how many of the unsalted sheep died. In the third year, with the unhealthy location and very rainy weather, the unsalted sheep all died, and nothing said to the contrary but what all of the salted ones died also, possibly from the contagious rot that killed a few the first year, and which, unless checked, would be liable to infect and finally destroy the whole flock. To prove that salt made the difference, it must first be shown that other conditions were at least equal.

His conclusion that a more liberal use of salt in Germany checked the spread of the cattle disease in that direction, in 1840, is evidently erroneous, for the same reason. The disease originated among wild and neglected herds, and ended among well cared for cattle.

He then comes to Great Britain, where, if disease existed at all, it should be very mild, for the average daily allowance of salt is stated in figures as a reliable guide. Here the intelligent testimony of Mr. Flint, given on the previous page, as to the extent and severity of the cattle disease in this same place, comes in as unfortunately for the Doctor's theory—that a liberal use of salt preserves health and stays disease—as the long and uncontrolled ravages of the disease has been to cattle owners, consumers and Insurance Companies there. If salt averts disease, should it not be all the more faithfully administered, rather than denied, when a scant supply of food excites the appetite without satisfying, thereby causing a rapid loss of flesh, and increasing the danger of disease, that salt is said to prevent? If small doses are really injurious with a short supply of food, as he says, why not pernicious also with a more liberal allowance?—effect being increased in equal ratio with quantity.

He admits that the more appreciable effects of the larger doses of salt are actually injurious, being an irritant poison. The truth of this statement all can understand who will dissolve a lump of salt in the mouth. And, until he shows that diminishing the quantity changes its nature, and thus determines

whether it shall be poison, purge, stimulant or food, it is fair and logical to insist that, with the nature of the large dose already admitted and shown to be poison, the smaller daily doses must be poison also, just in proportion to the quantity given.

It looks reasonable to me, and as far as I can understand their natures, it seems to be a fact that food is food, and poison is poison, in any quantity; food being useful to the extent it can be assimilated and appropriated to use, beyond which it is still food, unnecessary, perhaps, and possibly injurious, but never poison, until made so by changing its original nature, after which it could not be considered food in any quantity. And poison, by the same reasoning, is poison still, however much the quantity is varied.

Whether salt, in its nature and effects, is essential in any artificial quantity to the health of animals, or not, I fail to find any proof of it in these extracts, or even probability. The evidence is against his theory.

W. P. UNDERWOOD.

RICHLAND, Mich.

Stretches in Sheep.

[The following communication from Judge Cate, of Amherst, treats of an important subject and should be read by every farmer who keeps sheep.]

EDITOR WIS. FARMER:—My friend Rowley, of whom I purchased a part of my present flock, some three years ago, and other of your sheep breeding patrons are in trouble with their sheep, and losing them by stretches. My remedy or experience in regard to this matter may not be considered of much value by *old veterans*, but yet I will give my views for their consideration.

Since I have kept sheep, every year more or less have been troubled that way, but I have never lost one, neither have I ever given one drop of medicine. In my opinion, medicine never cures this disease. I do not think it is costiveness or constipation, though that may be the cause of it, or what leads to it, but all investigation shows that whatever the cause may be, the disease is a kinking or tieing of the intestines. Now, if this is so, do you suppose "salt and water," or "castor oil" will effect a cure? I doubt it; but, given in season, before the crisis has approached which is indicated by the animal stretching itself, would be found useful in preventing the disease by keeping the bowels loose and in action.

Having these ideas in relation to it, I have adopted a remedy that has thus far worked well with me. When I discover a sheep thus affected, if it is a wild, strong, active sheep, that has not been much handled, I take a dish of oats and work around among the flock until I can suddenly grab the sheep by the forelock. Seized thus unexpectedly, of course it will leap and bound and struggle to get free. When it has done its best, I let it go, with the kinks all taken out of its intestines. If the sheep affected is rather tame and used to being handled, I turn it out of the yard by itself, and frighten it as much as I am able, making it exert itself to the utmost. And, thus far, sheep thus treated have gone back to the flock cured of stretches.

A *post mortem* examination discloses the situation of the intestines, and at such times one thinks "how easy to cure if one could have taken hold of the intestines and just pulled the kinks straight!" But we can't do that, yet we can nearest approximate it by adopting the remedy above described.

My sheep are fed straw, night and morning, and one pint of good oats each, at noon. My sheep don't die with stretches, grub in the head or want of grub in the belly.

G. W. CATE.

AMHERST, Wis.

Care of Cows after Calving—Removing the Placenta.

ED. FARMER:—In the care of calving cows, in case the placenta adheres, I have been uniformly successful in removing it, without injury to the cow, by gentle and continued traction. My advice has just been successfully followed, in a case of several days standing, where fiddling with flaxseed tea, &c.

&c., had only prolonged the cow's sufferings. For the consequent local inflammation, I advised cool water injections.

If the adhesion was inside of the stomach or intestines, I could see more consistency in giving the various kinds of mucilage &c. to loosen it. W. P. UNDERWOOD.

RICHLAND, Minn.

The Improvement of our Farm Stock.

We make room for another extract from Mr. Cornell's remarks on a subject of vast importance to the Agriculture of the State. His figures and suggestions are worthy of careful study:

The improvement of farm stock is a subject deserving more of our attention than it is receiving. It is true that by comparing the present with the past, we can show a marked improvement, and trace much of our present prosperity to that cause, but we cannot claim our improvement to be the result of any system, and I think it is fair to assume that our ratio of improvement is far below what might be expected from the facilities we have at command. I shall not complain that our farmers do not purchase thoroughbred animals of improved breeds, at high prices, for stocking their farms. I think they are wise in not doing so. I know they cannot afford it. I also know that they cannot afford to neglect the improvement of their farm stock. How, then, can they best do it? I answer, by a systematic use of carefully selected thoroughbred males, from the improved breeds best adapted to the localities and purposes for which the animals are kept. The practice, too common among those of our farmers who attempt to improve, is to seek one cross with a thoroughbred male, and then resort to the use of the half-bred offspring. This is backsliding. The get of the half-bred male will, as a rule, possess less merit than he does himself, and hence time is passing with a diminished ratio of improvement.

Let our farmers adopt as a rule the practice of using thoroughbred male animals, and discard all others, in breeding stock for the dairy and shambles, and the following would be the result in ten years, allowing the females to come in at two years of age: The produce of 1865 would be half blood; those of 1867 would possess three-fourths of the improved blood; those of 1869 would be seven-eighths, and at the expiration of ten years the alloy or common blood would be reduced to one-thirty-second of that represented in the animal, and for all practical purposes the produce of the fifth and sixth generations, and beyond, would rank in value with the improved breed.

Bone Spavin.

MR. EDITOR:—I wish to inquire, through the FARMER, if a bone spavin can be cured. If so, what is the process, name of medicine, &c.?

The FARMER has become a great favorite in our family. We should dislike to do without it very much. It is a wonder that every farmer in the land does not subscribe for it.

JOS. M. HOYT.

MARCELLON, Wis.

ANSWER.—The spavin is sometimes cured. In a former volume we published a lengthy article on the subject, with illustrations. For the convenience of those who are without the volume in which it occurs, we quote the humane and sensible views of Dr. Edward Mayhew, M. R. C. V. S.:

"The regular treatment is to give diuretics, bleed, blister, rowel, seton, periostomy, neurotomy, fire and punch. * * * All these tortures have for centuries been inflicted; they have been practiced upon thousands of animals, only for men at this day to doubt whether the cruelty has been attended with the slightest service. Flesh, as capable of feeling as our own, has been cut, irritated, burnt and punched, for hundreds of years. * * Reader, if you have a horse which is lame from a spavin, and your calculations tell you it will not pay to nurse the cripple, have it slaughtered. Do not consent to have it tortured for a chance; do not sell it to the certainty of a terrible old age, and of immediate torment.

"The cure for spavin is good food, and rest—perfect rest, such rest as a healthy horse submits to in the stable. This, enjoined for months, with the occasional application of a mild blister, with the best food, to enable nature to rectify man's abuse, will do more good, cost no more money, and occupy no more time than the devilries usually adopted without success. * * While inflammation exists, apply poultices, and well rub the part with a mixture of belladonna and opium; one ounce

Or place opium and camphor on the poultices; or rub the enlargement with equal parts of chloroform and camphorated oil. The pain having subsided, and the heat being banished, apply, with friction, some of the following ointment; it may reduce the disease by provoking absorption; at all events, it will check all further growth by rendering further deposit impossible: one ounce iodide of lead, eight ounces simple ointment. Mix and apply."

The String-Halt.

EDITOR FARMER:—Can you, or any of your correspondents, give information how to cure String-halt in young horses, even slightly affected, and the complaint of short standing? If you can, you will confer a favor upon

A. H. PECK.

WESTFIELD, WIS.

ANSWER:—It is pretty generally conceded that stringhalt, being a nervous affection, and in fact a disease of the posterior extremity of the spinal column, is just about incurable. We know of no remedy. If any one else does, let him speak.—EDITOR.

The Spanish Merino.

MR. EDITOR:—Please state your reasons in some number of the FARMER why you consider the Spanish Merino superior to the French. I think the Wool Growers' Convention, held at Cleveland some three or four years ago, gave a decided preference to the latter, claiming that they are much more hardy, which I think is the main point. Let's have your experience.

O. P. UNDERWOOD.

AVOCA, WIS.

OUR ANSWER is summed up in a few words: *We* think they endure a severe climate better, and with such care—or rather, neglect—as our farmers are too apt to give them, are less liable to disease.—EDITOR.

CURE FOR SCURVY IN CALVES.—MR. EDITOR: As I was looking over the FARMER, I saw the question asked, what will cure the scurvy in in calves, or warts? Rub the parts affected with flaxseed oil two or three times a week, and give a little saltpetre.

JUDSON PAGE.

Cure for Stretches in Sheep.

I give them lard or salt pork. I think if wool growers would give their sheep fat pork, a slice or two, say once a month, it will prove a preventive and a cure for that troublesome disease.

JUDSON PAGE.

BANGOR, WIS.

REMARKS.—It is not impossible that so disgusting a dose as a slice of fat pork would so turn the stomach and affect the bowels of the delicate sheep as to insure a cathartic effect, and so afford relief from a disease originally induced by constipation. And, inasmuch as medicine is medicine, perhaps the sheep would not complain more bitterly of a dose of lard than of a dose of castor oil. But the idea of giving hog fat once a month to an animal like the sheep, or indeed to any decent animal, with a view to *prevent* a disease the prevention of which simply requires proper attention to regular diet, is altogether abhorrent to *our* ideas of humanity and common sense. Occasional salting and the daily feeding of a small quantity of roots, with access to water, while the sheep is upon dry diet, will prove the best preventive of which we have any knowledge.—EDITOR.

THE BEE-KEEPER.

Transferring Bees.

The best time for this operation is soon after the bees find good pasture, usually about the 20th of May. Choose the middle of a mild sunny day, when many of the workers are abroad, and general activity prevails, as they will then submit more readily than when the whole stock is at home. Provide yourself with some rolls of well dried cotton rags, and with a determined, persevering, cool self-possession,—also with an old ax, saw, long knife, two or three good broom brush, one or two small boxes or tin pans, as receptacles for the various grades of comb as it shall be removed from the old hive, and a table for working on. Set fire to a roll, and gently blow the smoke into the rear or front of the hive, at the bottom, until a general "buzz" shows that they

are fully aroused and sensible of the formidable intrusion. A few moments more of smudging will change the sound to a dull "hum," when they will begin to "travel," or leave the hive.

This conquering process usually occupies twenty minutes—more or less, according to the strength of the stock and the amount of stores on hand. Sometimes half an hour of smoking will not conquer them, and if you find them at this time in a state of great uneasiness, and very vicious, you may conclude they have no queen, or, at least, none able to lead off in the evacuation, and you may proceed at once to the next operation of tearing down the old domicil.

Having previously supplied yourself with some small box or hive of very nearly the same width and breadth of the old hive, to serve as a temporary receptacle for the bees, take the hive from its place on the stand, and invert it upon some blocks of wood upon the ground, so as to be firm; place the temporary box over it, and blow the smoke a few minutes into some hole at or near the top of the hive, bottom up. A few minutes will usually suffice to drive most of the stock from the combs to the empty hive above, which can then be set entirely off upon the old stand.

Then, with the saw, loosen the combs all around the sides, and with the ax start off one side of the hive, or, if a "gum," halve it so as to divide the combs with the least breakage.

Commence removing the combs with the long knife, and carefully brush off all stray bees into some old box, handy for the purpose. Sort out that which contains brood in the different stages of growth, from the egg to the full grown larva, and lay it carefully by, until the hive is emptied. Now this brood comb is of the greatest worth, and, especially at this time of the year, may, if saved to the stock, double their value. And here comes in one of the great advantages of the frame hives, by which all the valuable comb is readily saved. In any event, contrive some way of staying in the brood comb as nearly to the natural position as possible, and at the top of the hive.

But the supposition is that the transfer is being made to the "movable comb hive." The brood comb can be fitted to the frames by a little cutting and trimming. Even small pieces can be put into the corners or fastened to the upper part of the frame, always fitting the best edges to the top bar, and filling that part first.

To fasten in the comb we have tried several ways, such as cementing, and tieing in various ways, but the best found is to provide a quantity of thin, straight splints from lath, as long as the depth of frames; tie them in pairs at one end, so that the sticks may pass loosely each side of the frame; and dispose several pairs upon the table so that they may easily be brought up as needed. Place the frame top down upon the "stays," and fill with comb as before directed. Bring up the splints upon each side and tie at the other ends, as before, using enough of the stays to make all just barely secure from falling under its own weight and that of a few hundred bees that will soon take possession of it and make it fast at every point necessary for their uses and purposes, and if possible will remove every thread used in tieing the splints. The best tieing used is good stout glazed thread. We nearly ruined some good stocks once by using candle wick and tape, instead of the splints and thread. Small pieces of comb can be tied to the upper part of the frame by simply passing a thread around them, with a bit of shaving under the thread to prevent cutting in. These threads and splints can all be removed in about a week, more or less according to the strength of the stock.

After arranging the frames or combs in the hive, put it upright upon some clean boards, or a newspaper upon the ground. Then take the stock in the temporary hive and shake them out before the new hive, when they will speedily take possession and can be removed to the old spot, by a careful hand, in a few minutes after they all get in.

If it be desirable to see the queen, then, when shaking them from the temporary hive, have a newspaper or white cloth before the hive; and gently shake out a few at a time, and, as they travel in, have about two pair of good sharp eyes watching for her majesty; easily known by her large size, bright brown color, long, pointed abdomen, and short wings. See that she enters the hive; yet there is little to fear in this quarter, if she is sound.

If young brood or eggs are found in the worker comb, they are surely provided with a queen or the means of producing one. But if this is not the case, then, without any delay, take from some good strong stock a frame or card of worker comb well furnished with fresh eggs, and give them thereby the means of raising a queen. In transferring, all good worker comb should be saved, and drone comb rejected. For a few days after the transfer the entrance should be reduced to a small passage, that the stock may easily defend against robbers.

The principles of breeding cannot be dwelt upon here, but should be well understood, to enable the bee keeper to use the many ways of renovating, transferring and multiplying his stocks. In the use of the movable comb hive, if rightly constructed, twenty to thirty minutes are sufficient to transfer and thoroughly examine any stock; and for economy's sake will soon be adopted by all enterprising bee keepers. J. C. PLUMB.

"LAKESIDE," MADISON, WIS.

Beehives.

We should like to hear from any person or persons in the west who have had K. P. Kidder's patent hive in use one or more seasons. Are they a good hive, and do they fill the recommend of the inventor? Has any one tried wintering bees out of doors in his double hive? Have any of the readers of the WISCONSIN FARMER tried his comb-separators and found whether they compel the bees to build combs perfectly straight, and all brood comb?

We have never seen the hive in use, and having heard considerable said concerning it, would like to hear the opinions of those having practical experience. We have tested his Bee-veil or Protector, made of linen, and find it immeasurably superior to the old-fashioned bee-hat, being light, cool, comfortable to wear, and a very slight obstruction to the sight, and all united to perfect protection against the sting of the bee. It is a good thing. L. L. F.

ROLLING PRAIRIE, WIS.

THE POULTERER.

Preserving Eggs.

Since the "hen-persuader' has failed in its object, and fowls cannot be prevailed upon to lay eggs all the year round, it is advisable for those who are fond of eggs to preserve them in seasons when they are plenty. However close and compact the shell of an egg may appear to be, it is nevertheless full of minute holes and pores invisible to the naked eye. The effect of these holes is apparent in the decrease of the moisture of the egg, and the subsequent change in the contents occasioned by contact with the air. "As full as an egg is of meat" is an old saying, but in all stale eggs there is a vacancy proportioned to the loss they have sustained by evaporation.

If the end of a fresh egg be applied to the tongue it feels cold, but in an addled egg it feels warm, because the albumen of the egg being in contact with the shell absorbs heat from the tongue more rapidly than the air-bubble in the fresh egg. If the pores of the eggshell be kept closed, the contents must be kept intact, as no change can occur, and the object is to close this atmospheric connection in the cheapest and simplest manner.

Any kind of varnish will answer the purpose in one sense, but will defeat it in another; as eggs, being particularly affected by strong scents, would lose their delicate flavor by the oder of the coating. A better plan would be to employ beef suet or mutton tallow, provided the egg can be kept in a cool place. The egg should be dipped in the fat and afterwards wiped off, as any excess of grease over that required to fill the pores would become rancid. After this the egg should be set perpendicularly, with the small end uppermost, and placed in a box filled with bran and tightly covered up. If the egg is placed on its side, the yolk will adhere to the shell. Charcoal finely pulverized is a good substitute for bran, as it is a deodorizer and will absorb any disagreeable effect that might be received from the grease.

Some dealers are said to practice dipping

their eggs in diluted sulphuric acid. This is a feasible plan, chemically, as the action of the acid on the chalky shell would deposit sulphate of lime in the pores and thus close the connection. Strong vinegar would doubtless answer as well as vitriol. Eggs acquire an unpleasant odor by coming in contact with strong smelling substances, such as mahogany sawdust, lime water and musty straw; and the greatest care should be observed in having all the materials used each excellent after its kind.

It is a common practice to preserve eggs in lime, but they are at best doubtful when so kept, and cannot be praised. An egg is very much like a razor—either excellent or else good for nothing; and those who preserve eggs for market would do well to give the above mentioned recipes a trial.—*Scientific American.*

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

Cultivation of Strawberries.

ED. FARMER:—You wish to have my opinion as to the proper time of making a strawberry bed, and setting out the plants. I wonder that there should exist any difference of opinion in regard to that subject. There can be no doubt that the best time is between the 1st of September and the 10th of October, just as the development of the young plants will allow. I derive my opinion from observation of the natural peculiarities and tendencies of the plant, which, as a general thing, does not propagate by the seed, but by runners, and the next generation of which is bound to develop and grow to maturity in the latter part of the summer season.

It is well known that strawberry plants will not bear transplanting when the stock has become solid and wood-shaped; further, that the young plant is best fit and has the most decided tendency to take root while the mother plant continues to send out runners, which it does not in the spring. Experience also tells us that the strawberry stock is very delicate and sensitive and takes offence at any disturbance while being in the process of blossoming and fruiting; and that each young plant which grew from a runner in the summer has its blossom-bud in the spring next following. Consequently it becomes a cripple by being transplanted in the spring, save with all the ground left on its roots.

Everybody is aware that strawberries never grow to full perfection, if not kept entirely free from weeds, especially from the white clover, its greatest enemy. Now the only season in which a thoroughly clean bed may be prepared, and weeds kept off, is the latter part of the summer. Taking it for granted that plants set in the spring will hardly bear any, except a few crippled berries, and that those set out in the fall are sure to yield a tolerable crop, there is no loss of time by fall-planting I am inclined to believe that a good variety may degenerate in consequence of spring planting.

The following described method of setting the plants will secure general success, even in very dry seasons: Make a hole which will give ample room to the roots of the young plant, and fill it with water. When the ground is saturated with water set the roots in the mud; hold the leaves up with the fingers of your left hand, and fill up with dry, pulverized, light ground, until the heart of the plant is fairly covered.

Stable manure should never be used for winter covering, as it will often suffocate the young plants, and stock the bed with weeds and white clover. The best covering is a thin layer of dry leaves or sawdust. The latter need not be removed in the spring, and will very soon become an excellent fertilizer.

EMIL ROTHE.

WATERTOWN, WIS.

CRANBERRIES.—Have any of your readers tried raising cranberries in the dry soil of the garden? The Eastern nurserymen recommend them for garden cultivation. Do you, Mr. Editor, know of their being successfully cultivated in gardens? F.

[We have not seen them in any garden in this State, though we are informed that they are in some cases successfully cultivated on dry land.—ED.]

Items from our Flower Garden.

DIELYTRA SPECTABILIS

Should be grown in the shade; in such spots and under the drip of trees, it grows and blooms far better than if exposed to the sun's rays unprotected. The habit is also more graceful and the color richer. This peculiarity is very desirable, as but few plants do well in such situations.

PANSIES

Should receive a good deal of attention now, and the finer sorts carefully propagated. The seedlings of the new French style do well and are really beautiful. We have raised, this season, quite unexpectedly, several seedlings with carnation striped flowers. Has any one ever heard of such? The parent plants were of the above mentioned French variety, and had no trace of stripes. A dampish location is best for the pansy; the soil a good rich loam. Water should not, however, stand about the plants at any time.

FORSYTHIA VIRIDISSIMA.

When young, this shrub is too poor a bloomer to be handsome, but when full grown it is very desirable, its branches being covered with golden-yellow flowers, early in spring, that remain in bloom for several weeks. A large plant is now before us that was the admiration of visitors for the last month. Give it room to spread, and it will repay you.

SPIREAS.

Large plants of *prunifolia* are now white as snow with their beautiful little double, daisy-like flowers. It is one of the best and hardiest of the family. Grow it bushy, which is easily done by trimming back the branches after they have ceased blooming. *Revesii* will bloom in a week, and so will its beautiful double variety. No garden should be without these. Their culture is as easy as that of a currant bush.

LILACS

Are in full bloom, and if common are none the less beautiful, and it requires no skill to have them in perfection. A bush of Persian some twelve feet in diameter every way, and now visible from our library window, is really magnificent, covered as it is with a mass of bloom. The white is usually a shy bloomer, until the plants are large.

PEONIES.

In the East, a good collection of peonies is easily obtained, but here, especially about Cleveland, they cannot be had. For several years we have tried in vain to obtain anything like an assortment, and yet no family of hardy plants is more worthy a place in the garden. They grow and bloom well in almost any situation, and with little or no care. To the five or six sorts now in possession, it would be desirable to add another dozen or so; then something might be written about them. The shrubby varieties should be well manured every year or two, and a good portion of the same seems, at least in our poor soil, a decided benefit to all.

WILD FLOWERS

Don't receive the attention they deserve. Some of them are well adapted to garden culture; among them the *Hepaticas*, with their delicate blue flowers, as early in bloom as the crocus, and individually much handsomer, should be grown in shade. This is also the case with *Tiarella*, having spikes of small white flowers with orange-red anthers. A fine plant of it has grown in our garden, at the very root of a cherry tree, for two years, and is now in bloom, which makes up well in bouquets. The American Cowslip, *Dodecatheon meadia*, will grow either in shade or sun, but succeeds best in damp, somewhat shaded spots, should be oftener seen in collections. The Lady's Slippers, *Cypripedium*, needs a peculiar soil, and are usually found in damp woods, on decaying wood. Pot culture will be most successful with them, and they richly repay the trouble.

DAHLIAS,

If not yet planted out, should be immediately. Ours are already in the ground. Give them plenty of sun, moderately rich soil, and water occasionally in dry weather. The same may be said of the fine varieties of the

GLADIOLUS.

By planting the bulbs at different times, say a week apart, if you have an abundance of them, a succession of bloom will be secured. When the spikes show, tie to light stakes, for otherwise they will bend down and be unsightly.—K. in *Ohio Farmer*.

Tender Apple Trees.

MR. EDITOR:—Will those having orchards and nurseries report what varieties show the effect of the past winter's cold and changes? The following varieties (one year set) with me show a slight coloring of the bark on the south side of the tree, and will probably be more or less scarred: Sweet Bough, White Winter Pearmain, Fameuse, Dominie, Northern Spy, Tompkins County King, Maiden Blush, Carolina Red June and High Top Sweet. My location is sheltered by groves, and the lowest point I observed the thermometer was 30° below zero. L. L. F.

ROLLING PRAIRIE, Wis.

Good Apples omitted from Mr. Plumb's List.

[The following communication would have appeared in the winter, had it not been by some accident mislaid.]

MR. EDITOR:—I see among the many names in your list of apple trees that some of the best for this country are left out, such as the Roxbury Russet, Hurlburt, Cranberry, Pippin, Baldwin and Bellemont, all of which I have grown for years, and we think them superior winter apples.

I thought I would tell you how I stopped the Sapsuckers pecking my trees. I took from the milking yard a wheelbarrow load of fresh cow manure and plastered it on the trees, under the limbs, just where they peck. They finally left. Also I have saved a considerable many trees from dying when the bark was frozen close to the ground, by plastering around the tree pure privy manure.

JOSEPH DIBLEY.

OAK CREEK, WIS.

Grape Vines in Pots.

I advise all purchasers of grape vines to buy those grown in the open air, if the variety desired can be thus obtained. Every horticulturist will admit that the open air vines are much the best.

Three years ago I received a lot of Delaware vines grown in pots, with long, slender roots, not much larger than horse hairs, and canes about the size of knitting needles. I set them out in the best of soil; about one-half died, and the balance were inferior in size, roots, and vigor to some grown by me in one season in the open air from cuttings. Cuttings of the Delaware are very hard to strike root in the open ground. Layering the vines is a more successful method of propagation.

At the same time that I received the Delawares, I also purchased some Hartford Prolific vines, which had been propagated in a forcing hot house, and though four years old, they are no larger nor better than good strong one year old vines, grown from cuttings in the open air. Perhaps my vines were retarded in growth more than is usual with such potted vines; but I am sure that I give good advice when I recommend their purchase only in cases where no out-door grown vines can be obtained.—T. B. MINER, in *Country Gent.*

Give your Strawberries Plenty of Room.

Every cultivator must be aware that strawberries push roots more than a foot into the ground, provided it is deep and rendered permeable by manures suitable to the nature of the soil. They extend obliquely more than a foot and a half in all directions round the plant. If they are planted so closely that the roots entangle each other in struggling to obtain their nourishment, it may be easily conceived that the produce must in consequence be diminished, not only in the first, but also in the second, and more especially in the third year after planting. By some, this is ascribed to the plants being exhausted; but this is an error arising from mistaking the effect for the cause. It would be more reasonable to say that the elements of nutrition in the soil become insufficient for the demand. These observations show the necessity of planting widely apart, so as to prevent the roots of strawberries and other plants from coming in contact with each other, if we wish to obtain fine produce.

Those who plant exclusively with a view to crop, and to obtain the fruit in full perfection, cut off the runners in spring and summer as they are produced. The fewer runners a variety of strawberry throws out, the easier a plantation is kept in order. A variety naturally disposed to make few runners is preferred to those that produce many, if in other respects it possesses equal merit—a property which is becoming more and more appreciated by connoisseurs.—*M. de Jonghe in London Gardner's Chronicle.*

DWARF APPLE ORCHARDS.—Apple trees grafted near the ground to varieties which are good bearers, and brought into bearing early, will remain dwarf trees.

We know a tree of this description, thirty years old, from every part of which the fruit can be picked by a man while standing on a chair. Such trees are suitable for gardens, as they cast but little shade, are easily gathered, and are ornamental. When dwarf trees are set in orchards they should be set near together.—*Ex.*

A REMEDY FOR MELON BUGS.—A gentleman who has had much experience in raising melons informs that the best thing to keep bugs from the vines is:

Sulphur, one tablespoonful; yellow snuff, one tablespoonful; Cayenne pepper, one tablespoonful; ground mustard, one tablespoonful. Mix the whole with half a pint of flour, and apply to the plants when they are moist.

MECHANICAL AND COMMERCIAL.

Corn Plows and Cultivators.

Some time since we had inquiries as to the best implement for cultivating corn; and as now is the time when such implements are particularly required, we have taken pains to secure an engraving of a patent which seems to us to combine more desirable qualities than any other with which we are acquainted. It is denominated "The Buckeye Cultivator," and is manufactured by Thomas, Mast & Co., Springfield, O. The following are claimed as some of the leading features of this implement:

"Crooked rows of corn are plowed as easily and thoroughly as straight rows, as it is so arranged that the operator can at will move simultaneously all four of the shovels, without lifting or tipping them, eleven inches either way from the centre, making a sidewise movement of twenty-two inches, thus enabling him to avoid tearing up hills which are out of line, as shown in the cut.

"The shovels can be instantly raised out of the ground for the purpose of turning round at the ends, or freeing from stalks or other trash. This is done by pressing down the lever AA down into the hook O, in which position it is also left while traveling on the road or from field to field.

"The operator can either ride or walk without any alteration of the machine. While riding, the lever AA is used, and while walking the lever BB is used. This feature is not possessed by any other cultivator.

"The shovels are readily adjusted to a greater or less depth in the ground by means of adjusting bolts at the tops of the hangers, marked EE.

"A greater or less width between the shovels or 'shields' is readily obtained by moving the upper ends of the adjustable bars KKKK

outwards or inwards at the places marked J J thus regulating the distance of the shovels from the corn at pleasure.

"The adjustable 'shields' G G protect young corn from being covered or buried, while they may be taken off after the corn is larger.

"No other implement is needed to cultivate corn, as the shields effectually protect the corn when small and tender, and the height of the axle from the ground prevents breaking the stalks when large enough to plow the last time. In this respect most other cultivators are deficient.

"The operator is elevated above the dust, while in dewy mornings he avoids the wet corn blades. This is an advantage not to be forgotten.

"It is also adapted to plowing in wheat on fall plowing, or stirring fall plowing for corn, for which purpose the fifth or extra shovel is attached, in front of the other four, to the beams F F, by means of the bolts P P and rods Q Q. In this capacity it loses none of its advantages as described for plowing corn, every movement remaining under the control of the operator. Should the team 'shy,' or 'weave,' the plows are kept on their course by moving the lever A A, thus avoiding uncultivated spots, which is another advantage not possessed by other cultivators.

"Its cheapness of repair is an advantage not to be overlooked. Any part of the frame can be made by any farmer, while all but two pieces of the iron work can be made by any blacksmith. These two pieces can be had of any agent or be made by any foundryman."

The price of this corn-plow complete, with fifth shovel, &c., $47.50; complete without fifth shovel, 45.

We are personally acquainted with Mr. Mast, the manufacturer of this cultivator, and feel entirely safe in recommending his work. S. L. Sheldon & Bro., Madison, are the agents for this State, who will answer any inquiries that may be made as to the operation of this

WISCONSIN STATE FAIR 1864.

TO BE HELD AT

JANESVILLE, Sept. 26, 27, 28, 29, & 30.

OFFICERS.

COUNCIL OF GENERAL MANAGEMENT.

EXECUTIVE COMMITTEE OF SOCIETY.

GENERAL SUPERINTENDENT.

B. R. HINKLEY, PRESIDENT.

CONTROLLER OF OFFICE OF ENTRY.

J. W. HOYT, SECRETARY.

CONTROLLER OF TICKET OFFICE.

DAVID ATWOOD, TREASURER.

SUPERINTENDENT OF GATES.

DAVID WILLIAMS, MEMBER EX. COM.

SUPERINTENDENTS OF THE SEVERAL DEPARTMENTS OF THE EXHIBITION.

[See heads of the several Departments in Premium List.]

GRAND MARSHAL.

W. R. TAYLOR, Cottage Grove.

GENERAL REGULATIONS.

Supervision of the Exhibition.

The general supervision of the Grounds and entire Exhibition is vested in the President of the Society,

Exhibitors or other persons desirous of special privileges not granted in the published regulations of the Society, must apply to him at the Executive Office, and all assistants in the various departments, and all laborers on the grounds must be employed with his consent, and report to him the nature and duration of their services—the statement being certified to by the superintendent in whose department the service may be performed.

The orders of the President will be executed by

THE GRAND MARSHAL

Whose regular duty it shall be to have charge of the Police and see that order is preserved; to receive Exhibitors on their arrival and direct them to their proper places on the Grounds; to see that there be no lack of forage and water for stock, to see that none of the rules of the Society are violated with impunity, and that the Daily Programme is faithfully and promptly fulfilled by all parties concerned.

THE SUPERINTENDENTS

Are expected to have particular charge of all matters in their respective departments, to receive and attend to the proper arrange-

to attend the Judges in their examinations, furnish them with prize badges, and to see that the Programme, so far as it involves their several departments, is literally and promptly carried out. With the approval of the President, they may appoint any assistants that may be necessary to the efficiency of their departments.

They should be on the ground as early as 8 o'clock a. m. of Monday, and every morning thereafter at the same hour.

The Superintendents of the Cattle, Horse, Sheep, and Swine departments, will each have an Office in a conspicuous place in their several wards, where either they or their assistants will at all times be found.

Rules of Entry.

EXHIBITORS

Are requested to forward their entries, if practicable—particularly such as are to be accompanied by "statements" or pedigrees —before the date of the Fair.

All letters of entry, enclosing the requisite fee of one dollar and directed to the Secretary at Madison, will be by him duly filed and acknowledged.

The special attention of Exhibitors is invited to the following rules and regulations, to which it is the purpose of the Society to strictly adhere:

1. All entries for competition, except for the Plowing Match, Equestrian Display, and Trotting Match, must be made *before Tuesday evening, as at that time the Office of Entry will positively be closed.*

2. All entries must embrace the name of the owner and his post-office address in full, the name of the article or animal entered, the age and sex if an animal, and the class in which the entry is made, thus:

THOMAS BROWN, UNIONTOWN, POLK CO., WIS.

Animal or Article Entered.	Class.
1 Stallion, "Bucephalus," 5 years old,	Thoroughbred.
1 Sorrel Mare, "Flora," 4 years old,	Roadsters
1 Tile Machine	Operative Machinery
25 lbs June Butter	Products of Dairy &c.
2 Pots Phlox Maculata	Amateur List Flowers
1 Pair Mittens (by daughter 9 y'rs old,)	Domestic Man.

3. The entry fee must, in all cases, accompany the entry or entries made, except where the exhibitor is a Life Member, and in that case also if the entry be for a special premium.

4. No article or animal may be entered in any other name than that of the owner, and any person violating this rule will forfeit the premium which might otherwise be awarded.

5. All entries of *blooded* animals must be accompanied with satisfactory evidence of purity of blood.

6. In the class of Fat Cattle the entry must in all cases be accompanied by a statement of the manner, length of time, and cost of feeding.

7. No article or animal can be entered to compete for more than one premium, except as part of a collection in the same class: *Provided*, that horses entered for premiums in the general exhibition may also be entered for premiums in the Trials of Speed; and *provided*, also, that this exception shall not be so construed as to allow the same animal to compete for more than one premium in the Trials of Speed.

8. *Prize animals* at the last exhibition will be allowed to compete for prizes; but they must receive a *higher award*, or in a different class, to entitle them to a premium.

9. Where there is but one exhibitor, although he may show several animals in a class or subdivision of a class, only *one premium* will be awarded; that to be the highest, or otherwise, as the merits of the animal may be adjudged.

10. After having properly entered their articles, Exhibitors must *themselves see to their delivery to the Superintendent of the appropriate department* so that they may be in *their places and properly ticketed by Wednesday morning at nine o'clock.* They are likewise required to attend to their articles or animals while on exhibition, and truthfully to answer such questions as the Judges may deem essential to a correct estimate of their relative value.

The Executive Committee will take every precaution in their power for the preservation of articles and stock on exhibition, but will not be responsible for any loss or damage that may occur either during their delivery upon the Grounds, their exhibition, or their removal; nor will they in any case make provision for their transportation to or from the cars, or be subjected to any expense therefor.

11. No article or animal entered for exhibition may be removed from the Grounds until 5 o'clock p. m. of Friday, except by written permission of the President.

Forage for Stock, and an abundance of good water will be furnished free of charge; grain to those wishing it at first cost.

For the convenience of Exhibitors who may wish to dispose of animals on exhibition, PUBLIC SALES will be allowed on Friday and Saturday, between the hours of 8½ and 9½ a. m. and an experienced auctioneer, with reasonable limitations as to charges for his services, will be on the grounds at these appointed times. It should be understood, however, that no change of ownership will invalidate the authority of the Society over the said animals during the Fair.

Rules of Inspection.

THE JUDGES

Have been selected with much care from all portions of the State, and as the usefulness and success of the Exhibition depends more upon their ability and faithfulness than upon

almost any other circumstance, it is hoped that the ladies and gentlemen who have been chosen, will be prompt to attend upon this call of the Society, though it be at considerable sacrifice of personal convenience. They should be on the grounds by nine o'clock Wednesday morning, prepared to continue in the uninterrupted service of the Society during the hours of the Exhibition, until 12 o'clock, m., of Thursday, or until their duties shall have been performed.

They should report themselves, on arrival, at the Secretary's Office, near the main entrance, where tickets of admission will be furnished them, and as soon thereafter at the Office of the Executive Council as possible, so that any vacancies may be filled before the delivery of their Class Books to the several Committees.

They are requested to give attention to the general regulations and requirements in the Premium List, and especially to the following specific instructions:

1. A majority of the Judges in any Class shall constitute a quorum and be authorized to award premiums; and the first on the list shall be chairman.

2. Any information that may be needed as to the locality of articles or animals on Exhibition will be furnished by the Superintendents of the departments to which the classes severally belong.

3. The Judges will report not only the animals and articles entitled to premiums, but also those not thus entitled, when possessed of a high order of merit and therefore worthy of special commendation.

4. They are also instructed, in all cases of an attempted interference on the part of Exhibitors with their deliberations and decisions, to exclude the party so offending from competition in that particular class.

5. *Premiums will not be awarded when the articles are not worthy, even though there be no competition.*

6. No article will be excluded on account of having taken a premium at previous Fairs except as provided in rule No. 8, "Of Entries."

7. No premiums awarded to barren females shown in the *breeding classes*

8. The Class Books should be returned each evening to the Secretary for safe keeping, and it is especially enjoined that the Judges make their final reports of awards at the earliest possible moment after their completion—12 o'clock, m., of Thursday being the hour determined by the Executive Committee when said returns *must actually all have been made.* The more elaborate written reports, which the Society expects the Chairman of each Committee of Judges to prepare for publication in the volume of Transactions, may be deferred until after the awards have been declared, or even until the 1st of November.

9. Articles and animals properly belonging to the several classes, but not included in the list of premiums offered, should be examined by the Judges and, if worthy, favorably noticed in their report. Those which are not easily and naturally classified *will in all cases, be referred to the Miscellaneous and Discretionary Committee*, who will examine and report upon them as their merits shall seem to require.

10. The premium cards and ribbons shall be placed upon the successful articles and animals as soon as the decision is made.

A *blue* ribbon or card will represent the 1st premium; a *red* ribbon or card, the 2d; and a *white* ribbon or card, the 3d premium.

Awards of Premiums.

The Prizes awarded by the Committees will be announced by the Secretary on Friday, at the close of the Annual Address, and paid on demand, at the Treasurer's Office on the grounds, during the remainder of the day, and after that at his office in the city of Madison.

The Diplomas awarded will be prepared immediately and delivered in like manner.

But all premiums and diplomas not claimed and called for within six months after the award shall be forfeited.

Accommodations.

Arrangements will be made with the railroads of the State for transportation at reduced rates, as heretofore.

Exhibitors in the different departments will find the buildings, tents, stalls, pens, &c., all well adapted to their several purposes. The Hall of Fine Arts will be made secure, so that the finest works of art may remain in perfect safety during the continuance of the Fair.

A Ladies' Hall will be provided with female attendants and everything essential to comfort.

The Editorial Hall will be furnished with papers and dispatches of the latest date, and with every facility for receiving and transmitting intelligence.

REFRESHMENTS.

Invited guests and the Superintendents and Judges will dine with the Officers of the Society, daily, at one o'clock. To prevent mistake or confusion they are requested to apply for dinner tickets, each day, at the office of the President.

For the convenience of the public in general, arrangements will be made with respectable parties to furnish refreshments on the grounds at a moderate charge.

Ardent spirits will not be allowed either upon or near the grounds.

Terms of Entry and Admission.

The regular entry fee is *one dollar*, the payment of which entitles the person paying it to exhibit as many articles or animals as he may desire, (except for special premiums which require an extra fee,) to a ticket which will admit him at the Exhibitor's Gate during the Fair, and if the head of a family, to a single ticket for each member in actual attendance, provided the number of such members shall not exceed four. Exhibiters are further entitled to "Helper's Tickets," for such persons as are necessarily required to take care of animals or machinery on exhibition. And the Superintendent of the Horse Department may give to any exhibitor in his Department "Exit Tickets," when needed, which shall entitle the holder to one exit and one admission of horses; carriage and driver.

Life Members will be required to pay none except the extra entry fees.

Invited Guests, Delegates from other Societies, Editors and Reporters, not supplied with cards of admission, on application at the Office of the Secretary, near the main entrance, will be furnished with tickets and such general directions as will facilitate the objects of their visit.

OF ADMISSION.

Life Membership Tickets, admitting the lawful holder and his family to all the privileges of the Annual Exhibitions of the Society, and entitling him to the published Transactions, and to a ballot in the election of officers	$10 00
Single Day Tickets, each admitting the lawful holder to the exhibition for the day on which it is issued	25
Children's Tickets, admitting children under 15 years once	10
Children under ten, if accompanied by parent or guardian, admitted *free*.	
Season Carriage Tickets, admitting a double private carriage and driver during Fair, passengers being supplied with tickets	2 00
Season Carriage Tickets, admitting a single carriage during Fair, passengers being supplied with tickets	1 50
Carriage Tickets, admitting double carriage and driver once, passengers supplied with tickets	75
Carriage Tickets, admitting single carriage once, passengers supplied with tickets	50

☞ *No ticket bearing the name of the person to whom it was issued is transferrable, and any person detected in the attempt to transfer such a ticket will be punished by law.*

Official List of Premiums.

DIVISION A.

Domestic Animals.

Department of Horses, Jacks and Mules.

SUPERINTENDENT, BERTINE PINKNEY.

CLASS 1—THOROUGH BRED.

Best Stallion, 4 years old and over	$30
2d do do	20
Best Stallion, 3 years old and under 4	15
2d do do	12
Best Stallion 2 years old and under 3	8
2d do do	6
Best Stallion 1 year old and under 2	5
2d do do	3
Best Sucking Stallion Colt	3
2d do do	2
Best Brood Mare 4 years old and over	20
2d do do	12
Best Brood Mare 3 years old and under 4	12
2d do do	8
Best Filly 1 year old and under 2	5
2d do do	4
Best Suckling Mare Colt	3
2d do do	2

JUDGES.—Andrew Proudfit, Madison; Platt Eichelscheimer, Janesville; David Jones, Belmont.

CLASS 2—ROADSTERS.

[To be shown in harness.]

Best Stallion 4 years old and over	$25
2d do do	15
Best Stallion 3 years old and under 4	10
2d do do	7
Best Brood Mare over 4 years old	15
2d do do	10
Best Brood Mare 3 years old and under 4,	12
2d do do	8

JUDGES.—Same as for Class 1.

CLASS 3—HORSES FOR GENERAL PURPOSES.

Best Stallion 4 years old and over	$20
2d do do	15
Best Stallion 3 years old and under 4	10
2d do do	7
Best Stallion 2 years old and under 3	6
2d do do	4
Best Stallion 1 year old and under 2	5
2d do do	3
Best Brood Mare over 4 years old	12
2d do do	8
Best Brood Mare 3 years old and under 4,	7
2d do do	5
Best Filly 1 year old and under 2	5
2d do do	3
Best Suckling Mare Colt	3
2d do do	2

JUDGES.—J. H. Warren, Albany; Myron W. Wood, Lancaster; S. O. Raymond, Geneva.

CLASS 4—DRAFT HORSES.

Best Stallion 4 years old and over.....$15
2d do do 10
Best Stallion 3 years old and under 4..... 10
2d do do 7
Best Stallion 2 years old and under 3..... 7
2d do do 5
Best Stallion 1 year old and under 2..... 5
2d do do 3
Best Suckling Stallion Colt..... 3
2d do do 2
Best Brood Mare 4 years old and over..... 10
2d do do 7
Best Brood Mare 3 years old and under 4, 8
2d do do 6
Best Filly 1 year old and under 2..... 5
2d do do 3
Best Suckling Mare Colt..... 3
2d do do 2

JUDGES.—Same as for Class 3.

CLASS 5—JACKS AND MULES.

Best Jack.....$25
2d do 10
Best Jenny..... 10
2d do 5
Best pair working Mules..... 10
2d do do 5
Best Single Mule..... 5
2d do 3

JUDGES.—Same as for Class 3.

CLASS 6—MATCHED HORSES AND MARES.

[No animal in this class allowed to compete for more than *one* premium. To be exhibited in harness. *Speed not to be a governing test.*]

Best pair of Carriage Horses or Mares.....$20
do Roadsters..... 20
do Farm or draft Horses or Mares 20

JUDGES.—John Burnham, Milwaukee; Emery Thayer, East Troy; J. E. Munger, Oshkosh.

CLASS 7—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, &C.

Best for single harness, 4 y'rs old and over,$10
2d do do 5
Best for saddle, 4 years old and over..... 10
2d do do 5

JUDGES.—Same as for Class 6.

CLASS 8—TROTTERS.

[No animal to compete for more than one premium. Exhibitors of Stallions to furnish satisfactory evidence that the horse entered has been kept as a *stock* horse during the season. Speed to be tested by time, not by competition; *distance one mile*, and but *one trial* allowed, except in case of unavoidable accident, when the Judges may at their discretion grant such privileges as will insure fairness and impartiality. Price of each entry in this

Best and fastest trotting Stallion over 5 years old.....$30
2d do do 20
3d do do 15
Best and fastest trotting Mare ov'r 5 yrs old 30
2d do do 20
3d do do 15
Best and fastest trotting Gelding, over 5 years old..... 25
2d do do 15
3d do do 10
Best and fastest trotting Matched Span, over 5 years old..... 25
2d do do 15
3d do do 10

JUDGES.—F. McArthur, Fond du Lac; J. H. Rountree; S. S. Daggett, Milwaukee; H. P. Hall, Burke; B. Pinkney, Fond du Lac.

CLASS 9—WALKERS.

[No animal in this class will be allowed to compete for more than one premium. Entry fee $3.]

Best and fastest walking Stallion, in harness or under saddle.....$20
2d do do 10
Best and fastest walking Brood Mare, in harness or under saddle..... 15
2d do do 10
Best and fastest walking Gelding, in harness or under saddle..... 10
Best and fastest walking pair of Horses or Mares..... 10

JUDGES.—Same as for Class 8.

Cattle Department.

SUPERINTENDENT, BENJ. FERGUSON.

[The Judges of Cattle *are expressly required not to give encouragement to over-fed animals* in the breeding classes. The standard authority in all cases for pedigrees will be the English and American Herd Books. Exhibitors must come prepared to have their cattle led into the ring when directed to do so by the Superintendent *precisely at the time specified*, and animals not so brought forward will be ruled out of competition.]

CLASS 10—SHORT HORNS.

Best Bull 3 years old and over.....$25
2d do do 15
Best Bull 2 years old and under 3..... 15
2d do do 10
Best Bull 1 year old and under 2..... 7
2d do do 5
Best Cow 3 years old and over..... 20
2d do do 15
Best Heifer 2 years old and under 3..... 15
2d do do do 7
Best heifer Calf..... 7
2d do 5
Best bull Calf..... 7

JUDGES.—W. H P. Bogan, Appleton; E. M. Danforth, Summit; James H. Bonney, Big Fountain.

CLASS 11—DEVONS.

Premiums same as for Short Horns.

JUDGES.—G. M. Lyman, Ripon; Samuel Pratt, Spring Prairie; C. H. Willirms, Baraboo.

CLASS 12—ALDERNEYS.

Judges and Premiums same as for Class 11.

CLASS 13—AYRSHIRES.

Judges and premiums same as for Class 11.

CLASS 14—HEREFORDS.

Judges and premiums same as for Class 11.

CLASS 15—GRADE CATTLE & WORKING OXEN.

Best Grade Cow 3 years old and over	$10
2d do do	7
Best Heifer 2 years old and under 3	5
2d do do	3
Best Yoke Working Oxen	15
2d do	10
Best Yoke 3 year old Steers	7
2d do	5
Best 2 years old Steers	5
2d do	3
Best one year old Steers	3
2d do	2

JUDGES.—Allen H. Atwater, Oak Grove; Pliny Perkins, Burlington; J. C. Brewer, Hampden.

CLASS 16—MILCH COWS.

Best Milch Cow	$12
2d do	8

Judges same as for Class 15.

CLASS 17—FAT CATTLE.

Best pair fat Oxen 5 years old and over	$10
2d do do	7
Best pair 4 years old and under 5	8
2d do do	5
Best fat Cow, Steer or Heifer	5
2d do do	3

Judges same as for Class 15.

Sheep Department.

SUPERINTENDENT, JEREMIAH DODGE.

CLASS 18—SPANISH MERINOES.

Best Buck 2 yrs old and over, Engrav. or	$10
2d do do	7
Best Buck 1 year old and under	7
2d do do	5
Best pen of 3 buck Lambs	5
2d do	3
Best pen of 3 Ewes 2 years old and over	10
2d do do	7
Best pen of 3 Ewes 1 year old and under 2	7
2d do do	5
Best pen of 3 ewe Lambs	$5
2d do	3

JUDGES.—C. F. Hammond, Jr., Ripon; Q. H. Barron, Fox Lake; John Dodge, Tafton.

CLASS 19—FRENCH MERINOES.

Judges and premiums same as for Class 18.

CLASS 20—SAXONS.

Judges and premiums same as for Class 18.

CLASS 21—SILESIAN SHEEP.

Judges and premiums same as for Class 18.

CLASS 22—LONG WOOL, MIDDLE WOOL, LEICESTER.

Judges and premiums same as for Class 18.

CLASS 23—FAT SHEEP.

Best fat Sheep not less than 3 in number,	$5
2d do do	3

Judges same as for Class 18.

Department of Swine & Poultry.

SUPERINTENDENT, H. P. HALL.

CLASS 24—SWINE.

Small Breeds.

Best Boar 2 years old and over	$10
2d do do	7
Best Boar 1 year old and under 2	7
2d do do	5
Best breeding Sow 2 years old and over	10
2d do do	7
Best breeding Sow, with litter of pigs not less than 6, under 3 months old	10
2d do do	5
Best boar Pig over 6 months old	5
2d do do	3
Best sow Pig over 6 months old	5
2d do do	3

Large Breeds.

[To weigh at mature age, when fattened, over 350 lbs.]

Best Boar over 2 years old	$10
do 1 year and under 2	7
do under 1 year old	5
Best breeding Sow over 2 years old, with litter of pigs not less than 6	15
do 1 year and under 2	7
Best Sow 6 months and under 1 year	5

JUDGES.—D. W. Maxon, Maxonville; John Crawford, Baraboo; L. R. Graves, Calumet

CLASS 25—POULTRY.

Best and greatest variety of Poultry owned by Exhibitor	$5
Best lot Shanghai fowls 1 cock and 2 hens,	2
" Dorkings, do do	2
" Bolton Grays do do	2
" Cochin China fowls do	2
" Spangled Hamburg do	2
" Black Spanish do do	2

Best lot Polands, one cock and two hens... $2
" Bantams do do ... 2
" Turkeys do do ... 2
Best pair Ducks.....
" Guinea Fowls..... 2
" Geese..... 2
" Pea Fowls..... 2
" Game Fowls..... 2

JUDGES.—Chas. Oswin, Middleton; E. P. Allis, Milwaukee; M. Gillett, Tomah.

DIVISION B.

Products of the Soil, Dairy & Household.

Agricultural Department.

SUPERINTENDENT, GEO. C. PRATT.

CLASS 26—FIELD PRODUCTS.

[The products must have been grown by the Exhibitor.]

Best sample winter Wheat not less than 1 bu $3
2d do do 2
Best sample spring Wheat not less than 1 bu 3
2d do do 2
Best sample Rye not less than 1 bushel..... 3
2d do do 2
Best sample Oats not less than 1 bushel... 2
2d do do Transactions
Best sample Barley not less than 1 bushel 2
2d do do Transactions
Best sample Buckwheat not less than 1 bu. 2
2d do do Transactions
Best sample Flax Seed not less than 1 bu. 3
3d do do 2
Best sample Hops not less than 25 lbs..... 3
2d do do 2
Best sample Timothy Seed not less than 1 bu 3
2d do do 2
Best sample Clover Seed not less than 1 bu. 3
2d do do 2
Best sample Peas not less than 1 bushel... 2
2d do do Transactions
Best sample Beans not less than 1 bushel.. 2
2d do do Transactions
Best sample Seed Corn not less than 1 bu. 3
2d do do Transactions
Best sample Carter Potatoes..... 2
2d do do Transactions
Best sample Mercer do 2
2d do do ....Transactions
Best sample Pinkeye do 2
" Early do 2
2d do do ....Transactions
Best show of known and excellent varieties 5
2d do do 3
Best sample Carrots..... 2
2d do .....Transactions
Best sample Turnips..... 2
2d do .....Transactions

JUDGES.—Z. P. Burdick, Janesville; L. B Brainard, Waupaca; G. B. Salmon, Hudson.

CLASS 27—GARDEN VEGETABLES.

Twelve best stalks Celery..... $2
2d do .....Transactions
Six best heads Cauliflower..... 2
2d do .....Transactions
Six best heads Broccoli..... 2
2d do .....Transactions
Twelve best Beets.....Transactions
Twelve best Parsnips.....Transactions
Best sample Onions..... 2
2d do .....Transactions
Six best heads Cabbage.....Transactions
Twelve best Tomatoes.....Transactions
Twelve best Purple Egg Plants...Transactions
Twelve best Sweet Potatoes..... 2
2d do .....Transactions
Best half peck Lima Beans.....Transactions
" Windsor Beans... do
Twelve best Winter Radishes..... do
Best and greatest variety Garden Products 5
2d do do 3
Best and greatest variety Garden Seed raised in the State..... 5
2d do do 3

JUDGES.—D. B. Bailey, Prescott; H. C. Williams, Eau Claire; Thos. Green, Montfort.

CLASS 28—PRODUCTS OF THE DAIRY AND HOUSEHOLD.

Butter.

Best 25 lbs June made Butter..... $7
2d do do 5
3d do do 3
Best 25 lbs at any time..... 5
2d do 3
3d do 2

[Competitors for premiums must state in writing where the butter was made; the number of cows kept on the farm; the mode of keeping them; the treatment of the cream and milk before churning, winter and summer; the mode of freeing the butter from the milk, and the kind of salt used.

Butter offered for premiums must be presented in butter tubs, jars or firkins.]

Cheese.

Best three Cheeses made in the State..... $7
2d do do 5
3d do do 3
Best single Cheese..... 2
2d do .....Transactions

[Competitors must state in writing when it was made; the number of cows kept, whether the cheese was made from one, two, or more milkings; whether any addition was made of cream, and the quantity of rennet used; the mode of preparing it; the mode of pressure; the treatment of cheese afterward, and the kind of salt used.]

Flour and Honey.

Best barrel Winter Wheat Flour..... $5
2d do do 3
Best barrel Spring Wheat Flour..... 5
2d do do 3
Best sample, not less than 10 lbs, Honey..... 5
2d do do 3

[Samples of honey to be accompanied by a written statement of the kind of hive used, and of the summer and winter treatment of the bees.]

JUDGES.—Eli Stilson, Oshkosh; J. M. Leland, Bristol; Chas. White, Wautoma.

Fruit and Flower Department.

SUPERINTENDENT, J. C. PLUMB.

[All fruits must be arranged on the tables by Tuesday evening. Fruits receiving premiums in one class cannot compete in another; and the Judges are instructed to withhold the premiums offered, in all cases where the fruits presented are either *not named* or have not sufficient merit. Exhibitors, if required, must likewise present to the Judges a certificate that the fruits offered were actually grown by them.]

CLASS 29—FRUITS GROWN BY NON-PROFESSIONAL CULTIVATORS.

Best and greatest variety of Apples, not less than 3 specimens of each...Dip and 7
2d do do 5
3d do do 3
Best ten varieties..... 3
2d do 2
3d do .....Transactions
Best five varieties..... 2
2d do .....Transactions
Best show of autumn Apples.....Dip and 7
2d do 5
3d do 3
Best show winter Apples.....Dip and 7
2d do 5
3d do 3

Pears.

Best and largest variety Pears not less than three.....Dip and 5
2d do do 5
3d do do 3
Best two varieties of Pears..... 5
2d do 3
3d do 2

Plums.

Best and greatest variety Plums, not less than three each.....Dip and 3
2d do do 2
3d do do Transactions

Quinces.

Best show of Quinces.....Dip and 5
2d do 3
3d do 2
Best 2 specimens of one or more var.....Trans

Peaches.

Best show of Peaches..... 5
2d do 3
3d do 2
Best single variety, 3 specimens..... 3
2d do do 2
3d do do Transactions

Grapes.

Best and greatest variety Grapes, not less than 3 clusters each..... 3
2d do do 2
3d do do Transactions
Best and greatest variety of Fruit of all kinds, raised by Exhibitor.....Dip and 10

Melons.

Best specimens and largest collection of Watermelons .....Dip and 5
2d do do 3

JUDGES.—Thos Hislop, Milwaukee; L. P. Chandler, Burke; J. Townley, Moundville.

CLASS 30—FRUITS BY PROFESSIONAL CULTIVATORS.

Premiums same as in class 30.

JUDGES.—Jno. Dunlap, Milwaukee; F. W. Landon, Janesville: Levi Sterling, Mineral Point.

CLASS 31—WISCONSIN WINES.

Best assortment Wines worthy 1st prem...Dip
Best sample Grape Wine not less than 2 bot. $5
2d do do 3
Best sample Currant Wine..... 3
2d do do 2
Best sample Rhubarb Wine..... 3
2d do do 2
Best from any other materials...Discretionary

[Specimens competing must have been made without the addition of spirituous liquors, and be accompanied with a statement in writing, showing when, where, by whom, and how manufactured, together with its cost per bottle.]

Judges same as for class 30.

CLASS 32—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

Best Floral Design of natural flowers, Dip a $3
2d do do 2
Best display in quality and variety Cut Flowers..... 2
2d do do Transactions
Best and greatest variety named Flowers, 2
2d do do Transactions
Most tastefully arranged basket of Flowers 2
2d do do Transactions

Best and greatest variety of wild Flowers 3
Best display Dahlias not less than 10 var. 2
2d do do Transactions
Best display in quality and variety of Verbenas 2
2d do do Transactions
Best five named varieties of Roses..... 3
2d do do 2
Best variety and quality of Asters..... 2
2d do do Transactions
Best do Gladiolus..... 2
2d do do Transactions
Best do Phloxes 2
2d do do Transactions
Best do Petunias..... 2
2d do do Transactions
Best do Pansies 2
2d do do Transactions
Best Pyramid Bouquet..... 3
" Flat do 2
Most tastefully arranged Bouquet..... 2
Best Herbarium, plants and flowerse orrectly named.....Dip

Evergreens.

Best show of Evergreens, nursery grown, in boxes or tubs..... 5
2d do do 3

JUDGES.—J. T. Stevens, Madison, Mrs. B. R. Hinkley, Summit; MrsH. P. Hall, Burke; Mrs. P. H. Smith, Appleton; Mrs. E. C. Sage, New Lisbon.

CLASS 33—FLOWERS BY PROFESSIONAL CULTIVATORS.

Best Ornamental Design of any desirable material $3
2d do do 2
Best and greatest var. Greenhouse Plants, 3
" twenty varieties in bloom..... 3
" twelve Geraniums..... 2
" and greatest number of Dahlias..... 3
" twelve named do 2
" seedling do 2
" and greatest variety of Verbenas..... 3
" twelve named sorts do 2
" seedling Transactions
" six Fuschias in pots..... do
" six Petunias do ..... do
" six Phloxes do ..... do
" six Asters do ..... do
" six Carnations named..... do
" display in quality and variety of Roses 3
" twelve named sorts Roses..... 2
Most tastefully arranged and largest collection of cut Flowers..... 3
Best pair round Bouquets.....Transactions
" flat do ..... do
Best and grertest variety Phloxes do
do Asters.. do
do Peonies do
do Petunias do
do Pansies do
do Gladioluses do
Best and greatest variety of all sorts of Flowers raised by exhibitor.....Dip and 5

JUDGES.—Mrs. Dr. Carr, Madison; Mrs. Z. P. Burdick, Janesville; Mrs. Nelson Dewey, Lancaster; Mrs. B. Pinkney, Fond du Lac; G. H. Barwise, Madison.

CLASS 34—DELICACIES.

[Process of preparation &c., to be given in all cases in writing.]

Best and greatest variety, not less than 10 one exhibitor..... $5
Best Apple Preserves, not less than 1 qt. 1
" Peach do do 1
" Strawberry do do 1
" Gooseberry do do 1
" Currant do do 1
" Cherry do do 1
" Plum do do 1
" Tomato do do 1
" Grape do do 1
" Quince do do 1
" Pear do do 1
" Catsup do do 1

Jellies, etc.

Best and greatest variety, not less than 8, one exhibitor..... $5
Best Apple Jelly, not less than 1 quart..... 1
" Peach do do 1
" Plum do do 1
" Grape do do 1
" Strawberry do do 1
" Gooseberry do do 1
" Quince do do 1
" Cherry do do 1
" Currant do do 1
" Cranberry do do 1
" Crab Apple do do 1
" Raspberry Jam do 1
" Black Currant Jam do 1
" Apple Butter do 1
" Peach do do 1
" Tomato do do 1

Pickles.

Best and greatest variety, not less than 8, $5
Best Cucumber Pickles..... 1
" Apple do 1
" Plum do 1
" Cherry do 1
" Artichoke do 1
" Pear do 1

JUDGES.—Mrs. S. S. Daggett, Milwaukee; Mrs. Ezra Wheeler, Berlin; Mrs. O. T. Maxon, Prescott.

DIVISION C.

Machinery, Manufactures, and Works of Art.

[Every machine and implement will be tested, so far as practicable, by *actual trial*. The premiums will in all cases be awarded upon the basis of *economical value*.]

Department of Machinery and Implements.

SUPERINTENDENT, C. W. OLNEY.

CLASS 85—MACHINERY AND IMPLEMENTS FOR AGRICULTURAL PURPOSES.

[All heavy machinery must be on the grounds *as early as Monday*.]

For that Machine which shall satisfactorily and the most thoroughly disintegrate the soil, and with the greatest economy of labor, power, time and money Silver Medal and $25
Best Threshing Machine, with Power included .....Dip and $25
2d do do 15
Best Tread Power with Separator,...Dip & 15
2d do do 10
Best Reaper, self-raker.....Dip
do hand-raker.....Dip
Best Mower.....Dip
Best combined Reaper and Mower.....Dip
Best portable Grist Mill and Bolting Apparatus complete, in actual operation during the Fair, grinding feed and economically making good flour, and not costing over $500.....Silver Medal
Best Grist Mill without bolt. apparatus,.....do
Best feed grinding Mill.....do
Best Clover Huller.....Dip
2d do 3
Best Fanning Mill.....Dip
2d do 3
Best Wind Mill for raising water, in operation .....Dip and 15
2d do do 10
Best Cornstalk and Straw Cutter to operate by hand or horse power.....Dip
2d do do 3
Best hand power cornstalk Cutter.....Dip
2d do do 2
Best Vegetable Cutter.....Dip
2d do 3
Best Potato Washer..... 3
2d do .....Transactions
Best Sod Plow for stiff soil...Cert. of Excellence
" do light soils.....do
" Steel crossing Plow.....do
" Corn Plow.....do
" Subsoil Plow.....do
Best collection or assortment of Plows in use in this country, with price attached to each.....do
Best farm or Road Scraper.....do
" Potato Digger.....do
Best dressed French Burr Millstones.....Medal
" Grain Drill.....do
" Drain Tile Machine in operation.....do
" specimens of Drain Tile..... 3
" Farm Wagon.....Dip or 5
2d do 3
Best Harrow..... 3
2d do 2
Best Corn Cultivator..... 3
2d do 2
Best Horse Cart for farm..... 5
2d do 3
Best Ox Cart..... 5
2d do 3
Best Horse Rake..... 3
2d do 2
Best Hay Rigging.....Dip or 3
2d do .....Transactions
Best Ox Yoke.....do
" Roller for general use.....Dip or 5
2d do 3
Best Clod-crusher & Roller combin'd..Dip or 5
" Horse-hoe to clean drill'd grain crops...Dip
" Churn ..... do
2d do .....Transactions
Best Cheese Press.....Dip
2d do 2
Best and most numerous collection of agricultural Implements.....Dip
Best and most numerous collection of agricultural and gardening Tools and Implements, by or under the supervision of the exhibitor, materials, workmanship, utility, durability, and prices to be considered in both cases.....Dip and 10
2d do do 5

[Articles in the above *collection* shall not receive individual premiums.]

JUDGES.—Wm. Blair, Waukesha; ——Blake, Racine; Samuel Cole, Gratiot.

CLASS 86—MACHINERY FOR MANUFACTURING PURPOSES.

Best portable steam rotary or circular Saw Mill, in actual operation, not more than 20 horse power—saw 40 inches in diameter or larger, to run as much as one entire day.....Medal and $25
Best locomotive Steam Boiler, not less than 6 horse power.....Dip and 10
2d do do 5
Best portable Steam Engine for farm use .....Silver Medal
2d do do 10
Best stationery Shop Engine, not less than 6 horse power.....Dip and $10
2d do do 10
Best stationary Engine not over 4 horse power, particular reference being had to security from fire, economy of fuel, and compactness, adapting it for printing presses.....Dip and 10
2d do do 5
Best Siding Mill in operation.....Dip and 10
" Shingle Mill do .....Dip and 10
Best Planing, Tongueing, and Grooving Machine in actual operation.....Dip and 10
Best machine for Surfacing only...Dip and 10
Best set of machinery for manufacturing sash, doors & blinds in operation...Dip & 10

Best Morticing Machine.....Dip & 5
Best Sewing Machine for family use.....Medal

JUDGES.—J. I. Case, Racine; W. H. Prentice, Sheboygan; Z. P. Burdick, Janesville; Gardner Meigs, Arena; A. J. Craig, Palmyra.

CLASS 37—MACHINERY FOR THE MANUFACTURE OF SORGHUM SYRUP AND SUGAR.

Best manufacturing apparatus complete upon the Fair Grounds, for sugar and syrup making, comprising grinding and boiling fixtures, parties to furnish canes and be at the whole expense of fitting up and working same on Fair Grounds during Fair.....Silver Medal
2d do do $25
Best sample sugar, not less than 20 lbs..... 10
2d do do 8
Best sample syrup, not less than 10 gal... 5
2d do do ... 4

[The premiums for apparatus to be awarded only on the exhibition of a superior establishment for the manufacture of sugar and syrup and a full and elaborate statement of the whole process, suitable for publication in the Transactions of the Society.]

JUDGES.—T. C. Dousman, Green Bay; A. G. Tuttle, Baraboo; E. T. Gardner, Green Co.

Department of Manufactures.

SUPERINTENDENT, DANIEL DAGGETT.

[Articles in this department to have been manufactured since 1860, and within the State; and in all cases exhibitors to furnish a written certificate to chairman of committee that the articles were so manufactured.]

CLASS 38—CARRIAGES, STOVES, HARNESS &c.

Best double Carriage.....Dip or $10
2d do 5
Best single Top Buggy.....Dip or 7
2d do 4
Best single Riding Buggy.....Dip or 5
2d do 3
Best Trotting Wagon.....Dip or 5
" Pleasure Wagon..... 5
" double Sleigh.....Dip or 5
2d do 3
Best single Sleigh..... ...Dip or 3
2d do 2
Best display of Carriages, Sleighs &c...Medal

Harnesses, etc.

Best carriage Harness..... 5
2d do 3
Best wagon Harness..... 5
2d do 3
Best single Harness..... 5
2d do 3
Best Gent's Saddle..... 3
" Lady's Saddle..... 3

Stoves, Furnaces, etc.

Best cooking Stove for wood.....Dip and $3
2d do .....Transactions
Best cooking Stove for coal.....Dip and 3
2d do .....Transactions
Best cooking Range for families.....Dip & 5
2d do do Transactions
Best ornamental Parlor Stove.....Dip
2d do do ...Transactions
Best sample Hollow Ware.....Dip
2d do .....Transactions
Best sample Fire Grates..... .....Dip
2d do .....Transactions

Various Manufactures.

Best Grain Cradle.....Dip
2d do ....Transactions
Best 12 hand Rakes.....Dip
2d do .....Transactions
Best 6 Hay Forks.....Dip
2d do .....Transactions
Best 6 Grass Scythes.....Dip
2d do .....Transactions
Best 6 Cradle Scythes.....Dip
2d do .....Transactions
Best Scythe Snath and Scythe.....Dip
2d do do Transactions
Best 6 manure Forks.....Dip
2d do .....Transactions
Best dozen Axes.....Dip
2d do .....Transactions
Best lot grain Measures not less than 6...Dip
2d do do Transactions
Best dozen Brooms .....Dip
2d do .....Transactions
Best 12 Milk Pans..... .....Dip
2d do .....Transactions

JUDGES.—Joseph Powers, Hebron; H. W. Curtis, Delona; M. S. Gibson.

CLASS 39—*Cabinet Ware, Cooperage, Willow Ware, Leather, Boots and Shoes, India Rubber Goods, etc.*

Cabinet Ware.

Best assortment Cabinet Ware.....Medal
" lot enameled Furniture.....Dip
" lot Rosewood Chrirs .....do
" Mahogany do $3
" Black Walnut do 3
" Rosewood Sofa..... 3
" Mahogany Sofa..... 3
" Black Walnut Sofa 3
" Bedstead..... 3
" Bureau..... 3
" Breakfast Table..... 3
" Extension do 3
" Centre do 3
" Washstand..... 2

Cooperage, Basket Ware etc.

Best specimen Flour Barrels..... $3
2d do .....Transactions
Best barrels for liquors and Meats..... 2
2d do do Transactions

Best Tubs..... 2
2d do .....Transactions
Best Pails..... 2
" Butter Firkins, oak..... 2
" Display of Cooperage.....Dip and 5
" Splint Baskets of oak or ash..... 2
" Willow Baskets..... 2
" display Willow ware made in State, Dip & 5
" specimen Willow prepared for use, of Wisconsin growth..... 2
Best Window Blinds..... 2
" Window Sash..... 2
" Doors..... 2
" Pine Lumber..... 2

Boots, Shoes, etc.

Best Leather Hose for Fire engines...Dip & 2
Best Gent's winter Boots..... 3
2d do .....Transactions
Best Gent's fancy Boots..... 3
2d do .....Transactions
Best Gent's Gaiters..... 3
2d do .....Transactions
Best and neatest Ladies' winter Boots..... 3
2d do do Transactions
Best Ladies' every day Gaiters, not too thin soled..... 3
2d do do Transactions
Best Ladies Fancy Shoes..... 3
2d do .....Transactions

Leather, India Rubber Goods, etc.

Best specimen Trunks.....Dip and 2
" Carpet Bags..... do 2
" Ornamental Leather Work..... do 2
" India Rubber Goods..... do 2
" do Shoes..... do 2
" Sole and Upper Leather..... do 2
" Calf Skins..... do 2
" Morocco for Bookbinding..... do 2

JUDGES.—H. W. Hayes, Palmyra; J. Sherman, Berlin; D. J. Spaulding, Black Earth.

CLASS 40—LIGHTING APPARATUS, ETC.

Best Portable Gas Works, for hotel or family use, not to exceed $250 in cost.....Dip
Best Lamp for burning Kerosene or Parafine oil.....Dip
Best and most economical of the above kinds of lighting apparatus for family use.....Dip

JUDGES.—E. S. Carr, State University; A. L. Hines, Beloit.

CLASS 41—MUSICAL INSTRUMENTS.

Best grand or semi-grand Piano Forte, Dip & $5
Best Boudoir Piano..... do 3
Best Square Piano..... do 3
Best Parlor Piano..... do 3
Best Parlor Organ..... do 3
Best Melodeon..... do 3

JUDGES.—A. Pickarts, Madison; Miss E. M Hayes, Palmyra; Mrs. E. A. Tappan, Madison.

CLASS 42—SILVER WARE, CUTLERY, BRITTANIA WARE.

Best exhibition Silver Ware.....Dip and $10
do Silver Table Cutlery.....Dip
do Table Cutlery.....Dip
do Pocket Cutlery, American manufacture.....Dip
Best specimen Silver Ware, with agricult'l design, suitable for premiums.....Dip
Best spec'n Argentine or Brittania ware...Dip
Best set surgical Instruments.....Dip
" Dental do .....Dip
" Mathematical Instruments.....Dip
" Surveyor's do .....Dip
Best Microscope.....Dip
Best Chronometer.....Dip
Best Watch.....Dip
Best specimen Electro-plated ware, Dip and $5

JUDGES.—Chas. Eslinger, Manitowoc; T. Davey, Mineral Point; W. A. Groves, Oconomowoc.

CLASS 43—PAPER, PRINTING, BOOK-BINDING.

Best specimen Print Paper, exhibited by manufacturer.....Dip
Best specimen writing do do Dip
" Book printing.....Dip
" Pamphlet printing.....Dip
" Handbill do .....Dip
" Circulars and Bill-heads.....Dip
" Card printing.....Dip
" Blank Book binding.....Dip
" Law do .....Dip
" Library do .....Dip
" Fancy do .....Dip
" Book work, all in all.....Dip
2d do do $5

JUDGES.—Chas. D. Robinson, Green Bay; M. Frank, Kenosha; J. Walworth, Richland Centre.

CLASS 44—TEXTILE FABRICS, CLOTHING, ETC.

Best piece Woolen Carpet, not less than ten yards..... $5
2d do do 3
Best piece Satinet do 5
2d do do 3
Best piece Blanketing do 5
2d do do 3
Best piece Flannel do 5
2d do do 3
Best Gent's Blanket Shawl..... 5
2d do 3
Best Ladies' Blanket Shawl..... 5
2d do 3
Best assortment machine-knit Hosiery..... 5
2d do do 3

Clothing, Hats, Furs, etc.

Best exhibition Men's Clothing.....Dip or $2
" Boys' do ..... do 2
" Men's Hats and Caps do 2
" Children's do do 2
" Hat Case..... do 2

Best exhibition Furs.....Dip or $2
" Gent's Fur Gloves... do 2
" Ladies do ... do 2

JUDGES.—Jas. M. Calloway and wife, Marietta; John Bradford and wife, Sparta; Jas. Hosford and wife, Wautoma.

CLASS 45—DOMESTIC MANUFACTURES.

Best twelve skeins Sewing $ilk..... $2
Best specimen Cloth or Ribbon, 5 yds..... 2
" woolen Kersey Blankets..... 2
" 10 yards Flannel..... 3
" do Woolen Cloth..... 3
" 15 yards wool Carpet..... 4
" Rag Hearth Rug..... 1
" Embroidered Hearth Rug..... 2
" Rug of other materials..... 1
" 15 yards Rag Carpet..... 3
" Wool Stockings..... 1
" Wool Mittens..... 1
" 10 knots woolen Yarn..... 1
" 10 yards Linen Cloth..... 2
" 10 do Diaper..... 2
" 10 yards Towel Cloth..... 2
" pair cotton Stockings..... 1
" pound linen Sewing Thread..... 2
" Patch Quilt..... 2
" white Quilt..... 2
" double Carpet Coverlet..... 3
" single do 2
" knit Counterpane..... 2
" wrought do 2
" crotchet wool Cape..... 1
" do Shawl..... 2
" white wove Counterpane..... 2
Best exhibition of taste and skill in cutting and making Boys' Clothing, by other than professional manufacturers..... 3
" do Gent's Clothing..... 3
" do Ladies' Dresses..... 3
" Gent's Shirts..... 2
" specimen Straw Hat..... 2
" do Bonnet..... 2

Juvenile, Girls Sixteen Years and under.

Best pair woolen Socks..... $2
2d do 1
Best 6 skeins woolen Stocking Yarn..... 2
2d do do 1
Best pair woolen fringed Mittens..... 2
2d do do 1
Best patchwork Quilt..... 3
2d do 2
3d do 1
Best specimen Darning..... 1

JUDGES.—Mrs. H. J. Starin, Whitewater; Mrs. A. K. Darling, Fond du Lac; Mrs. E. C. Sage, New Lisbon.

CLASS 46—MILLINERY.

Best silk Bonnet, domestic manuf'r, Dip or $3
2d do do 2
3d do do 1
Be t straw Bonnet do Dip or 3
2d do do 2
3d do do 1
Best Ladies' Cloak, domestic manufacture, $3
2d do do 2
3d do do 1
Best Ladies' Dress do 3
2d do do 2
3d do do 1
Best Bonnet Flowers do 2
2d do do 1
Best and greatest variety of the above and other articles of Millinery, manufactured by exhibitor in this State.....Dip and 5

JUDGES.—M. S. Gibson, Hudson; Mrs. C. H. Williams, Baraboo; Mrs. J. I. Case, Racine.

CLASS 47—ORNAMENTAL NEEDLE WORK.

Best embroidered Shawl..... $3
2d do 2
Best embroidered Scarf..... 3
2d do 2
Best muslin Embroidery..... 2
2d do 1
Best lace Embroidery..... 2
2d do 1
Best worsted Embroidery..... 2
2d do 1
Best specimen plain Needle Work..... 2
2d do do 1
Best embroidered Sklrt..... 2
2d do 1
Best Chair Cover..... 2
Best knit Tidy..... 2
2d do 1
Best crotchet Tidy..... 2
2d do 1
Best wrought Slippers..... 2
2d do 1
Best Piano Spread..... 2
2d do 1
Best evidence skill and taste in Embroidered Handkerchief..... 2
2d do do 1
Best do Hemstitched h'dkf... 2
2d do do 1
Best Ottoman Cover, tufted on cloth..... 2
2d do do 1
Best do do hair cloth... 2
2d do do do ... 1
Best do plain on canvass..... 2
2d do do 1
Best evidence skill and taste in Lamp Mat of any kind..... 1
Best crotchet Lamp Mat..... 1
" embroidered do 1
" fringed do 1
" ev. skill & taste in fancy work Basket, 2
2d do do 1
Best do fancy Card Basket..... 2
2d do do 1
Best do ornamental Shell work, 2
2d do do 1
Best do fancy Hair work..... 2
2d do do 1
Best do Hair Flowers..... 2
2d do do 1
Best do embroidered Reticule... 2

Best exhibition Wax Fruit, representing choice varieties..... 5
2d do do 3
Best do Flowers do 3
2d do do do 2

Juvenile—Under Fourteen Years.

Best ev. skill and taste in Crotchet Work, $2
2d do do 1
Best plain Needle Work..... 2
2d do 1
Best specimen Darning and Repairing..... 2
2d do do 1
Best skill and taste in Ornamental Needle Work 2
2d do do 1
Best knit Mittens..... 1
" knit Socks..... 1
" specimen Hair Work..... 1

JUDGES.—Mrs. Chas. Dunn, Belmont; Mrs. H. L Palmer, Milwaukee; Mrs. Chas. Billinghurst, Juneau; Mrs. Jas. H. Bonney, Belle Fountain; Mrs. Eli Stilson, Oshkosh.

Department of Fine Arts.

SUPT'S, J. C. PICKARD AND WIFE.

CLASS 48—WORKS OF ART.

[Articles exhibited in this class, except "Paintings by the Old Masters," will not be entitled to a prize unless executed by the competitor.]

Best specimen Statuary in Marble...Dip & $5
do Carving in wood.....Dip
do do stone.....Dip
do Statuary in Plaster.....Dip

Oil Paintings.

Best Oil Painting, Figures.....Dip
2d do .....Trans
Best do Landscape.....Dip
2d do do .....Trans
Best specimen Animal Painting.....Dip
2d do do .....Trans
Best do Portrait Painting.....Dip
2d do do .....Trans
Best do Fruit Painting.....Dip
2d do do .....Trans
Best do Flower Painting.....Dip
2d do do .....Trans
Best do Wisconsin Landscape.....Dip
2d do do .....Trans
Largest and best exhibition of Paintings by the Old Masters..... $5
Best collect'n of original Oil Paint.,...Dip & 5

Water Color Paintings.

Best Painting in water colors, Figures.....Dip
2d do do Trans
Best do do Landscape...Dip
2d do do do Trans
Best do do Animal.....Dip
2d do do do ...Trans
Best Painting in water colors, Fruit.....Dip
2d do do do .....Trans
Best do do Flowers.....Dip
2d do do do ...Trans
Best do Wisconsin Landscape.....Dip
Best collection water color Paintings, Dipa $3

Sun Painting.

Best specimen Daguerreotypes.....Dip
2d do do .....Trans
Best do Melainotypes.....Dip
" do Ambrotypes.....Dip
2d do do .....Trans
Best do Amb. or Dag'r of animals...Dip
" do Photographs, plain.....Dip
do do water colors, Dip
do do oil.....Dip
do do India ink.....Dip
Best collection Stereoscopic Pictures.....Dip
2d do do .....Trans
Best collection of Sun Pictures of different kinds.... ....Dip and $5

Miscellaneous.

Best specimen Pastel Painting.....Dip
do Crayon Drawing.....Dip
do Pencil do .....Dip
do Pen do .... Dip
do Mapping.....Dip
do India ink Drawing.....Dip
do writing book, by pupil in any of the public schools.....Dip and $2
Best systemized and best executed Record Book of a County Ag'l Society...Dip and 5
Best Wood Engraving..... Dip
" Lithograph..... .....Dip
" specimen Engraving on Copper.....Dip
do do Steel.....Dip
do Electrotyping.....Dip

JUDGES.—Ex-Gov. Salomon and wife, Milwaukee; W. H. Watson and wife, Madison; H. S. Baird and wife, Green Bay.

CLASS 49—MISCELLANEOUS ARTICLES.

[Articles of whatever class, not otherwise provided for, have been assigned to this Committee, who will carefully examine into their claims and report according to merit.]

JUDGES.—M. H. Powers, Dartford; Wm. Wilson, Menomonee, Dunn Co.; J. T. Kingston, Necedah.

DIVISION D.

Farm Work and Equestrianism

Department of Farm Work.

SUPERINTENDENT, W. F. PORTER.

CLASS 50—PLOWING MATCH.

With Horses.

First Premium.....Medal and $10
2d do 10
3d do .....Transactions

With Oxen.

First Premium.....Medal and $10
2d do 10
3d do .....Transactions

Rules for Plowing.

1. The land to be tame grass sward, and the quantity for each team, one-sixth of an acre.
2. The depth of the furrow to be not less than six inches.
3. The teams to start at one time, and each plowman to do his work unaided.
4. No person except the Viewing Committee will be allowed to enter upon the grounds after the work is commenced, until the Committee leave the ground.
5. Each plowman to strike his own land, and plow entirely independent of the adjoining land.
6. Within the sixth of an acre plowed, each plowman will be required to strike two back furrows and finish with the dead furrow in the middle.
7. Premiums awarded for best work within reasonable time.

JUDGES.—Eli Stilson, Oshkosh; Geo. Robbins, Green Lake; Almon Osborn, Metomen.

Department of Equestrianism.

SUPERINTENDENT, DR. E. B. WOLCOTT.

CLASS 51—LADIES' RIDING

First Premium.....$20
2d do 15
3d do 10
4th do 5

[The Executive Committee wish it distinctly understood that the above prizes are offered, not for the fastest riding, but rather for superiority of ease and grace in the saddle, and for skill in horsemanship.]

JUDGES.—Gov J. T. Lewis, B. F. Hopkins, Madison; Chas. Billinghurst, Juneau; Dr. J. H. Warren, Albany; L. H. D. Barron, Pepin.

Exhibitions by Counties.

For the largest and most creditable contribution to the Exhibition made by the citizens of any one county, exclusive of Rock, A PRIZE BANNER WORTH.....$100

[The Judges are to be selected by the Executive Committee at the time of the Fair, and will be required to base their decision upon such circumstances of population, remoteness from the locality of the Fair, amount, quality, &c., &c., as will insure equal advantage to all the counties in competition. The award will be made to the Agricultural Society of the successful county; and notice of an intent to compete must be filed by competing societies with the Secretary as early as the 1st day of August. The articles and animals exhibited will not be classified by counties, but each exhibitor from counties competing will be furnished with a card bearing the name of the county to which he belongs, so that the Judges appointed will be enabled to decide after an examination of all the articles thus labelled in the several classes. No entry fee required.]

EDITORIAL MISCELLANY.

Premium Strawberries.

We find it necessary to say again that our Strawberry plants were short this spring, and that those who have not received them will be supplied in the fall. We refer to this because some of our subscribers do not seem to understand what was said last month.

Sharp Practice. Look out for the Tricksters.

We are advised that agents for certain machinery are making statements, on the authority of the editor of the WISCONSIN FARMER, calculated to disparage the Climax Sugar Cane Mill, manufactured by E. W. Skinner & Co., of Madison—the purport of their misrepresentations being that we have no confidence in the Climax, and would prefer not to advertise it. All such statements are simply and entirely false, as we have great confidence in the Climax Mill and in the ability and enterprise of its manufacturers.

Bee Keepers' Convention.

At the request of numerous enterprising Bee Keepers of Wisconsin, we give notice that on the 16th of June a Convention will be held at the State Agricultural Rooms in Madison, with a view to the advancement of the Bee-Keeping interests of the State.

By reference to Mr. Hoxie's advertisement of the "Kidder Hive," it will appear that a sweepstake prize is proposed, to be awarded to the best hive. Mr. Hoxie has sent in his entry fee of $5, and it is expected that the agents and proprietors of other hives will promptly accept the challenge and enter the lists in competition.

Bee keeping is an interest of much importance. Let all who can attend the Convention.

It will afford a rare opportunity for gaining practical information, and especially for comparing the most popular hives.

Sorghum Syrup--A Prime Article.

We are indebted to the courtesy of Mr. Hutchinson, of Blooming Grove, for a jug of better sorghum syrup than we have hitherto tasted. Notwithstanding the unfavorableness of the last season, Mr. H. manufactured over 2,000 gallons of syrup of superior quality. This year he intends to do a still larger business. Success to his enterprise. Sorghum is bound to win, while the war lasts, at least.

Subscriptions at our Risk.

Can we send subscription money by mail at your risk? Q. A. H.

[Subscriptions may be sent at our risk. The other inquiries of your letter have already been answered in April and May Nos.]

Garnet's Chili Potatoes.

About two years ago we procured a few of what was said to be the Garnett Chili Potato from J. M. Thorburn, New York—had them cultivated for two seasons, and have distributed about two bushels this spring. Those who have received them will please inform us in regard to their merits, after a fair test.

Hungarian Grass for Sheep.

I should like to inquire through your columns for information in regard to the size, shape and locality of a sheep house for the accommodation of 100 or 150 sheep, also whether Hungarian grass is suitable food for sheep. R. WILLIAMS.

[We have not seen Hungarian grass as food for sheep fairly tested. If any one has, let him speak. Will try to furnish a plan for a sheep house at an early day.]

Proceedings

Of the Wisconsin Sugar Cane Growers' Convention, held at Madison, February 3d, 4th, and 5th, 1864.

We have received, from Mr. O. S. Willey, Secretary, a neat, well filled pamphlet bearing the above title. Published by authority of the Legislature, and contains a large amount of valuable information. Creditable to all parties concerned. Copies can be had on application to the secretary at Madison, or at this office.

The Premium List

For the next State Fair will be found in this No. We trust that every friend of agricultural and mechanical improvement will contribute his best efforts to insure the success of the exhibition, and that the last week of September may be signalized by the greatest gathering of the people ever yet witnessed in Wisconsin. Talk of it to all your neighbors who do not take the FARMER, and do your best to enkindle the old enthusiasm.

Pamphlet copies of the Premium List may be had on application to the secretaries of the County Societies, or by sending an order, with a stamp to prepay postage, to this office.

[ADVERTISEMENT.]

To Citizens of Wisconsin and the Northwest:

INSURE WITH THE MUTUAL LIFE INS. CO. OF WIS.—*It is the best Company for Western men!* The reasons why it is the best Co. are: That it is a Western Company, made up of and managed by western men, doing all or nearly all its business in the Northwest, and concentrating in this one Company a superior class of risks, mostly of young men, or men in the prime of life, and they selected with as great care in regard to eligibility to Life Insurance, as are the risks of any other company.

It is true that the Company have neither the age or accumulations of some of the Eastern companies, but is gaining both very fast; is vigorous for one of its age, is doing a large business, having issued 337 policies in the month of December just passed. It is doing its business as economical as the same can be done anywhere, having for its guide the experience of all older companies, and among its managers some of the best business men in the Northwest.

It has thus far made none but safe investments, and has paid all losses promptly, and

we cannot see why the probabilities of the future may not be identified with that of the Great Northwest. This is the first successful effort ever made to build up a similar institution in the West, and should be the pride, as it certainly is the interest of every business man in this section of the States to identify himself with its growth.

This Company issues nonforfeiting policies, upon which the whole life premiums are paid in five or in ten annual payments, also the endowment policies, which become due and payable to the party insured upon his attaining a given age, or to his heirs at his death, should he die before attaining the specified age.

OFFICERS.

S. S. DAGGETT, Pres. JAS. BONNELL, V. Pres.
C. D. NASH, Treasurer. A. W. HELLOGG, Sec'y.
E. B. WOLCOTT, Con. Physician.
S. S. Daggett, Jas. Bonnell, John H. Van Dyke, H. L. Palmer, Chas. F. Ilsley, *Executive Committee.*
J. G. McKINDLEY Gen'l Agent.
Office No. 14, Wisconsin St., Milwaukee.
M. D. MILLER, Agent, Madison.
E. SPRAGUE, Traveling Agent for Central Wis.
January 15, 1864. aptf

NOTICES OF NEW ADVERTISEMENTS.

THE PREMIUM FARM OF WISCONSIN FOR SALE.—Special attention is called to the advertisement by Hon. E. W. Egerton of his splendid Summit farm—the same which won the prize of the Silver Pitcher offered by the State Agricultural Society in 1860, and subsequently described in the 6th volume of Transactions of W. S. A. S. We know this farm "like a book," and have heretofore, on several occasions, expressed ourselves in enthusiastic terms as to its high merits. There is probably no better, handsomer, or more thoroughly improved farm in the West. Scarcely too much could be said in its praise. The man who buys it at the figures furnished us by Mr. E. will surely make a good investment.

SEE statements of "Dividends" this month added to the Continental Ins. Co's advertisement. A remarkable showing.

SEE Messrs. R. & M. Harder's advertisement of a Premium Tread Power and Thresher. We have never seen their threshers in [illegible] ination of its claims, to commend it to the attention of those who wish to buy machinery of that sort.

MR. D. M. DEWEY, of Rochester, N. Y., advertises Phin's Grape Culture, and a fine assortment of lithographs of fruit, colored to nature. We have examined both the book and the plates and can conscientiously give them a good recommendation. It seems to us that Mr. Phin has done the grape-growing public good service in furnishing them with so clear, simple and practical a book. We shall take occasion to notice it more at length in a subsequent No. The fruit plates do credit to both artist and publisher.

ITALIAN QUEENS.—We would call special attention to the advertisement, in this No. of the FARMER, of Italian Bees for sale by J. W. Sharp. We are personally acquainted with Mr. Sharp, and purchasers may rely upon his statements. Those wishing to acquire this new and superior variety of the honey bee will find it to their interest to purchase of him.

McKENNY & ALLEN collect all claims for pensions, back pay, bounty &c. growing out of the present war. See advertisement.

SEE L. E. PECK & Co's advertisement of Stump Extractors. They are said to make a good machine and agree to warrant.

G. T. WINSLOW, dealer in millinery goods, &c., whose advertisement is to be found in our columns, has done a splendid business this season. Glad of it. He started in the right manner, and is worthy of his success. The ladies who *know* hardly go anywhere else for things in his line.

WE are pleased to learn of the growing prosperity of the Dodge Co. Mutual Ins. Co. It is a sound Company and eminently deserves to succeed.

S. WARD & BROTHER propose for $1 to give full instructions for building good sorghum Evaporators with a capacity of 80 to 100 gallons of syrup per day, and at a cost of from 100 to 200 per cent. less than that of patent [illegible]

MR. A. W. CAMPBELL, Agt., advertises The American Conflict; a history of the Great Rebellion, by Horace Greeley. Mr. Greeley's strict conscientiousness, and his great ability as a writer, are sufficient guarantee of the value of this work.

GRAND

Farm Property For Sale.

"SOUTH SIDE FARM," TOWN OF SUMNIT.

THE UNDERSIGNED offers for sale his farm in the town of Summit, Wisconsin, containing 320 acres of the very best of land, all under a high state of cultivation, and watered by Bark river coursing through it.

The property is known lately as "The Prize Farm"—the State Agricultural Society, at its Fair in 1860, having awarded to this farm the premium for "the best cultivated farm in the State."

The farm is well stocked now with cows and conveniences for carrying on the dairy business, and is well equipped with implements for grain raising, and will be sold cheap and on easy terms, with or without the personal property.

Possession given immediately if desired.

Refer to S. S. Daggett, Esq., Milwaukee, or to the subscriber on the premises, or his mail address, Waterville, P. O., Waukesha Co., Wis.

jntf E. W. EGERTON.

[Advertisement.]

SPECIAL PREMIUM.

Believing the Sorghum interest to be a great and important one to this State and the Northwest, and wishing to do what we can to develope it, we offer the following premium to all, who are disposed to compete for it, in the State.

For the best twenty-five acres of cane grown in the same neighborhood, by one or more parties,

A complete set of our most improved *Two Horse Separate, Geared Sorghum Machinery*, with Bagasse carrier, evaporator, heater, smoke pipe, skimmers, and all the fixtures complete for setting up and operating, worth at the shop $260, cash, and capable of making from 150 to 200 gallons of syrup per day.

Parties proposing to compete for the foregoing premium will need to send to me for entry blanks and circular of instructions, &c. The earlier attended to the better.

D. J. POWERS.

Madison, Wis., Feb. 20, 1864.

Phin's Open Air Grape Book.

THE Cultivation of Grapes in the open air in cold latitudes—400 pages—profusely illustrated.

☞ The best work on the Grape, and should be in the hands of every man who has a vine.

PRICE $1.25—sent post paid. Address

jntf D. M. DEWEY, Agt.
Rochester, N. Y.

DEWEY'S COLORED FRUIT PLATES.

SIX HUNDRED AND FIFTY VARIETIES.

OF APPLES, Pears, Peaches, Plums, Cherries, Grapes, Berries, Ornamental Trees—Roses, Flowers, &c., all drawn and colored from nature—for the use of Nurserymen and Tree dealers. Catalogues sent on application to

D. M. DEWEY, Agt.
jntf Rochester, N. Y.

WESTCOTT'S

CHURN AND BUTTER WORKER!

Patented April 29, 1863.

WE have obtained the right of manufacture and sale of the above churn for this State, and we present it to the public confident of its possessing features entirely new and of such practical utility as necessarily give it a superiority over any churn hitherto invented.

We are now prepared to show by practical exhibition—

First, That it will churn cream or sweet milk in from two to six minutes.

Second, That it will gather the butter and work it over in about the same length of time, by simply reversing the motion.

Third, That it will make as good butter in the above named time as if the process of churning was continued for one hour or even more.

Fourth, We combine all these qualities in a churn at once cheap, simple and durable, and free from metallic substances inside the churn.

In speaking thus confidently of the advantages of this churn, we invite all those who either use or are in any way interested in such an article, to witness our practical exhibitions, either with cream or milk, and see if these things be so.

We are now prepared to furnish at short notice the above mentioned churn, at wholesale or retail, and invite all those wishing an article of the kind to give us a call at the office of M. E. Fuller & Co., on King street.

A. SHERWIN & Co.

Madison, Wis., May 2, 1864.

BUY THE BEST!

THE PREMIUM

RAILWAY HORSE POWER which has repeatedly taken the **First Premium at the N. Y. State Fair**, and has never failed to do so over all its competitors wherever exhibited by us in competition with others, running with low elevation and slow travel of team.

Combined Threshers and Cleaners,

THRESHERS, SEPARATORS, FANNING MILLS, WOOD SAWS, &C., &C., &C.

All of the best in market. The

THRESHER AND CLEANER

Received the FIRST PREMIUM at the Ohio State Fair, 1863, runs easy, separates the grain clean from the straw, cleans quite equal to the best of Fanning Mills, leaving the grain fit for the mill or market.

☞ For price and description send for Circulars, and satisfy yourself before purchasing.

Address R. & M. HARDER,
jntf Cobleskill, Schoharie Co., N. Y.

ITALIAN BEES.

ON and after the middle of June I shall be prepared to fill orders for Italian Queens. My stock of Italian Bees is equal to any in the West, having spared neither labor nor expense to secure those of undoubted purity.

They can be sent by express and I warrant their safe arrival at the nearest Express office on the Railroad.

Price of Queen bred from pure Italian Queen, $5

Orders solicited. Orders filled in the order in which they are received. J. W. SHARP.

jntf Deer Creek, Dane Co., Wis.

STATEMENT
OF THE
Madison Mutual Insurance Co.
FOR THE YEAR ENDING
DECEMBER 31, A. D. 1863.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 103, of the General Laws of 1858.

Total amount of accumulations		$473,170 84

ASSETS.

Unimpaired premium notes of policy holders	$398,256 36	
Cash on hand and due from policy holders and agents for cash premiums	67,747 48	
Real Estate	6,000,00	
Office furniture and fixtures	1,167 00	473,170 84
Whole No. policies issued		33.165
Am't of outstanding risks thereon		$24,021,935 94
Number of policies issued in 1863		11.107
Am't of outstanding risks thereon		$8,962,000 00
Am't premium notes thereon		131,481 33
Am't cash premiums thereon, less commissions to agents		70.629 48
Am't interest collected and charged		1,999 55
Total am't losses reported		$34.551 43
Total am't losses paid		32,068 06
Losses adjusted and due, awaiting call		525 00
Losses adjusted and not due		none.
Losses unadjusted and awaiting further proof		2,008 83
All other claims against the company		815 31
Am't paid for furniture and fixtures		167 77
Am't of expired premiums		14,404 19
Am't paid for advertising and postage		1,011 38
Am't paid for printing		1,383 16
Am't paid for policy stamps		2,306 35
Am't paid taxes to Com'r Internal Revenue		416 68
Am't paid for exchange		113 64
Am' paid for cancelled policies		526 36
Expenses paid, including all compensation to Officers and Directors, stationery, clerk hire, rent, fuel, lights, and other incidental expenses		5,263 90

STATE OF WISCONSIN, } ss.
Dane County, }

John W. Boyd, President, and Denison Worthington, Secretary, of the Madison Mutual Insurance Company, do solemnly swear that the foregoing statement is true and correct according to the best of our knowledge and belief.

JOHN W. BOYD,
D. WORTHINGTON,

Sworn and subscribed before me, this 23d day of January, A. D. 1864.

D. ATWOOD,
Notary Public.

DIRECTORS AND OFFICERS
OF THE
MADISON MUTUAL INSURANCE CO.
FOR THE YEAR 1864.

DIRECTORS.

J. W. BOYD, Walworth Co.
EDWARD O'NEIL, Milwaukee Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
ORRIN GUERNSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
JOHN Q. ADAMS, Columbia Co.
EDWARD PIER, Fond du Lac Co.
N. C JANES, Winnebago Co.
JOHN TOAY, Iowa Co.
H. PARKER PAINE, Minnesota.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. R. MONTAGUE, State Agent for Minnesota.

LOSSES PAID BY THE MADISON MUTUAL INSURANCE COMPANY IN THE YEAR 1863.

Sam'l M Wells, Summit, Waukesha co	$500 00
George Y Freeman, Galesvill, Trempeleau co	15 00
John Barnard Malone, St Croix co	3 50
A C Wiggins, Centre, Rock co	201 00
A Richmond, La Crosse	185 00
E Bement, Fitchburg, Dane co	821 00
T D & D M Kanouse, Cottage Grove, Dane co	252 47
J & D N Collar, Dover, Racine co	12 00
J J Reiser, Kendall, La Fayette co	4 25
J Wearne, Mineral Point, Iowa co	46 38
Wm Jewell, Dodgeville, "	78 00
Sam'l Blumer, New Glarus, Green co	8 00
D D Utt, Potosi, Grant co	2,678 24
Wm Cooper, Marshall, Dane co	675 37
D Sutton, Merrimac, Sauk co	10 00
M Montgomery, Union, Rock co	47 13
Alex Stewart, Troy, Sauk co	581 28
J C Loomis, Millville, Grant co	200 00
J B Harelson, Lancaster, Grant co	1,050 00
C Ostrander, West Point, Col co	649 56
M Weisban, Franklin, Sauk co	77 82
C Spann, Sheboygan Falls	14 50
Geo B Waite, La Prairie, Rock co	677 18
J Howlett, Black Wolf, Winnebago co	5 00
Wm Rentar, Powaukee, Waukesha co	31 50
E M Blanchard, Waukesha	2 00
Jas Murphy, Hickory Grove, Grant co	15 25
R W Couch, Watertown, Jeff co	221 72
Jas Davis, Bradford, Rock co	5 00
H Bullard, Union "	55 00
C Williams, Mineral Point, Iowa co	26 00
Lars Moe, Dodgeville, "	171 25
P C Elliott, Freedom, Sauk co	10 00
D S Chase Oregon, Dane co	29 45
Jos Smith, Hampton, Minnesota	325 00
Wm Misslich & Sons, Ithaca, Richland co	285 83
Geo A Harris, Marshan, Minnesota	166 56
Sam R Lane, Lowville, Columbia co	375 32
Sam King, Fountain Prairie "	113 66
L Ketchum, Sparta, Monroe co	200 00
B Johnson, Houston, Minnesota	157 47
T Henton, Otsego, Col co	21 00
J L Compton, Stoughton, Dane co	517 00
Wm Reynolds, Hebron, Jeff co	150 00
J A Jennings, Franklin, Milwaukee co	15 00
A Skellinger, Tafton, Grant co	7 00
J Arnold, Plymouth, Rock co	760 00
N D Campbell, La Crosse	25 00
L K Walker, Metomen, Fond du Lac co	40 00
Wm H Swain, Verona, Dane co	25 00
Davis & Kenney, Burke, Dane co	134 00
Wm Sherman, Eagle, Waukesha	20 00
Elizabeth W Davis, Brooklyn, Minnesota	383 42
A S Stiles, St Anthony "	700 00
T Dutcher, Sullivan, Jeff co	251 00
A Parsons, Mt Pleasant, Green co	600 00
J H Dalamatyr, Middleton, Dane co	67 00
Geo Winter, Brooklyn, Green co	100 00
A Johnson, Union, Rock co	5 00
Sarah Vernon, Trempeleau, Trempeleau co	58 90
Harriet L Shaw, St Anthony Minnesota	110 00
D Murray, Brighton, Kenosha co	183 00
S R Edwards, Sugar Creek, Walworth co	75 00
J Downey, Ottawa Sauk co	10 [illegible]
A G Dunning, Arlington, Col co	4 00
H Hallickson, Pleasant Spring, Dane co	25 00
J, Brosemer, Roxbury, "	270 00
J Eble, Sheboygan, Sheb co	430 00
N Mertes, Forest, Fond du Lac co	35 00
L Davitz, Hubbard, Dodge co	265 00
J B & M Witty n, Troy, Sauk co	40 00
L F Parker, Dakota, Minn	14 75
T Cousins, Trempeleau, Trempeleau co	36 85
J H Knowlton, Janesville, Rock co	660 00
O Rollman, Calumet, Fond du Lac co	12 50
Wm Killips, New Berlin, Waukesha co	700 00

L Griswold, Newburg, Minn	15 00
Wm Rogers, Hebron, Jeff co	200 00
L Huber, Eagle Point, Chippewa co	200 00
Jno Hoover, Cannon City, Minn	500 00
A Coburn, Prairie du Chien	125 00
Cornelia S Merrill, Westport. Dane co	1,350 00
Wm H Read, La Prairie, Rock co	150 00
Frances Patterson, Afton, Minn	1,650 00
T A Stephens, Whitewater, Walworth	50 00
O Cox, Fulton, Rock co	40 50
Thos Mott, Roscoe, Minn	13 00
W Wright, Janesville, Rock co	118 00
P Schwartz, Troy, Walworth co	10 50
Sophia A Bagan, Ithaca, Richland co	430 75
Jno Carlson, Amherst, Minn	33 45
Jos Sykes, Little Grant, Grant co	15 10
Jos Hartman, Dekorra, Columbia co	692 68
R Gallagher, Cooning Grove, Dane co	910 00
Jno Evans, Hebron, Jeff co	72 00
Dan'l Maxson, Albion, Dane co	180 00
S Burlingame, Ripon, Fond du Lac co	116 00
Jos Grundy, Harmony, Rock co	576 00
R Williamson, Hebron, Jeff co	20 00
W W Heding, Middleton, Dane co	214 70
L H Chase, Waupun, Fond du Lac co	725 00
A Pattridge, Pleasant Grove, Minn	10 00
E A Glover Troy, St Croix co	339 00
Thos Robbins, Jefferson, Jeff co	125 00
M J McCourt, Oshkosh, Winnebogo co	700 00
P Trimborn, Greenfield, Milwaukee co	25 00
Clapp & Davis, Springfield, St Croix co	112 00
H Sprenger, Hubbard, Dodge co	441 00
E Newton, Sullivan, Jeff co	4 38
E R Maxson, Walworth, Walworth co	75 00
G D Pearce, " "	123 75
H H Hunger, Oak Creek, Milwaukee co	156 40
W Watson, Courtland, Col co	25 00
S W Smith, Lamartine, Fond du Lac co	310 80
Wm B Taber, Dover, Racine co	1,150 95
H Hewitt, Ripon, Fond du Lac co	92 00
F N Jung, Wayne, Washington co	171 06
C Dunning, Farmington, Jeff co	300 00
Wm L Wilson, Harrison, Grant co	100 00
P Smith, Ironton, Sauk co	525 00
S & J Simon, Springfield, Dane co	23 00
Nancy J Ricker, Sherburne, Minn	769 00
A Jameson, Kingston, Sauk co	66 00
A Willis, jr. Prairie du Sac, Sauk co	155 00
D O Callagan, Jackson, Washington co	12 00
A Bunter, Oshkosh, Winnebago co	400 00
F & H W Albert, Greenfield, Sauk co	24 00
A A Ross, Lake, Milwaukee co	560 00
C Napp, Waterloo, Grant co	400 00
J Henry, Lodi, Col. Co	5 00

This is in every sense a

FARMERS' COMPANY

Insuring nothing but farm and homestead property—giving *more protection to the farmer* than any other company, because insuring his grain in stacks, and his live stock in fields on farm, against damage by lightning as well as burning; and at a cheaper rate because it is careful in choosing its members and the kind of property it insures.

Twenty-five thousand farmers of this State are members of this company, and their families embrace over 100,000 persons whose interests are protected by its mantle!

Office in the Company's New Building adjoining Porter's Block, Madison.

D. WORTHINGTON, Sec'y.

FOR NURSERYMEN.

FRENCH Pear seed, growth of 1863, $2 50 per lb. Apple seed, clean and well saved, growth of 1863—$5 50 per bu.

Anger's Quince cuttings	$3 ⅌ 1000
Manette Rose cuttings	8 ⅌ 1000
Osier willow cuttings	3 ⅌ 1000
50,000 Red Cedar, 4 to 12 in	5 ⅌ 1000

A. G. HANFORD & BRO.
mh2 Columbus Nursery, Columbus, Ohio.

Threshing Machines

MANUFACTURED AT

ROCK RIVER IRON WORKS.

JANESVILLE, ... WISCONSIN.

THESE Machines have been in use for the last three years, and have given satisfaction in every case, without exception. They are made of the best material, and the workmanship will show for itself. We claim to have no superior in this respect, and to make our words good we will merely state that our machines are

Warranted in Every Particular.

We depend entirely on the merits of our work to establish a good reputation, and so far we have not failed, and we do not intend to do so.

The *HORSE POWERS* are universally admitted to be the strongest made, and every thresher knows how unpleasant and unprofitable it is to have frequent breakages. We make both Eight and Ten Horse machines, and have extras always on hand, or in the hands of our agents.

We refer more particularly to the following points in our machines, which we claim as improvements on all others now in use, and which we can sustain by numerous certificates, if called upon to do so.

1. The large Shoe and selves, which give great cleaning capacity.
2. The long Carrier Rake, and the great speed with which it runs, thus spreading the straw thinner as it leaves the apron or grain belt, and thereby giving the grain more chance to fall through, and not be carried over in the straw.
3. The ease with which it can be removed for storage, or left on permanently, as in other machines, being supported by swivel braces from the sills.
4. The strong and heavy gearing in the jack, a very important feature.
5. The pulleys are all covered with leather to prevent slipping and wearing of belts.
6. All the oil cups have covers to keep the bearings free from dirt.
7. The extra thick cloth used in the apron.
8. The extra wide elevator, and the manner in which the unthreshed heads &c. drop from the shoe spout directly into the cups, instead of making the cups so many shovels to scoop it up, thus jamming and tearing them in pieces, and it also prevents clogging.
9. Observe the trucks, and examine the workmanship and finish of the whole machine.
10. These machines are furnished with the best kind of leather belting (or rubber if preferred) and and are fully warranted in every respect.

Address ROCK RIVER IRON WORKS CO.
may3 Janesville, Wis.

Make Your Own

EVAPORATOR!

PERSONS engaging in the Sorgho business, by sending *one dollar* to the subscribers will receive in return full instructions for building the most economical and efficient Evaporator at a cost of from 100 to 200 ⅌ ct. less than patented evaporators now in use. Thus you will

Save from $25.00 to $50.00

On the first cost of Evaporators, besides a rational saving by our economical mode of applying heat.

Capacity of Evaporator, 30 to 100 gallons good syrup per day. S. WARD & BROTHER.
ma6 Lane Depot, Ill.

MINERAL PT. RAILROAD

FROM Mineral Point to Warren, Ill., connecting with Ill. Central, Galena and Chicago Union, for all points east, west and south. G. W. COBB, Supt.

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, JULY 1, 1864. No. 7.

Thoughts Suggested by the Drouth---Preventives, Remedies and Compensation.

Short crops and long faces. Whose fault is it? That it has not rained for many dusty, scorching weeks, is probably nobody's fault. The laws of nature are not fitful and capricious as some would seem to believe, but fixed and determinate. There are no exceptions. The weather is determined by laws as regular and consistent as those which govern the motion of the heavenly bodies. The misfortune is that as yet we are so wanting in knowledge of them that we are unable to predict the changes they bring.

Some day it is hoped that we shall be wiser than now, and quite as competent to foretell with accuracy a coming storm or drouth, as we are now to calculate an eclipse of the sun or moon. Meantime we must content ourselves with studying and obeying the laws by which the effects of unfavorable changes may be obviated or removed, and having done our best, comfort ourselves with the compensations which God in his goodness hath provided.

But how small a proportion of those who are most affected by serious drouths ever give a moment's thought to the subject in any philosophic mood! How many, for example, ever know that deep plowing, sub-soiling and underdraining are means that may be rationally employed by the farmer to counteract the effects of a protracted drouth? Yet there is no scientific truth more susceptible of demonstration than this. For if the plowing be shallow the roots of the plant, unable to penetrate the earth to the sources of moisture, are necessarily dried and stunted, to the great injury of that crop to which we look for our profit; while, on the other hand, if we drain, sub-soil and plow deeply, thereby making the earth light and porous, it will the more readily absorb moisture in the form of dew, as well as the fertilizing gases which float in the atmosphere, and at the same time enable the roots to descend to cooler and moister depths. This is the theory of the advantages of that deep plowing which we have urged upon our readers so repeatedly in the years past that but for the circumstances which are calculated to make the lesson at this time peculiarly impressive, we should feel like passing it over in silence.

The facts sustain the theory most admirably, for in almost every case where the plowing was deep and thorough, the crops are very much better at this date than in those cases where the plowing was shallow.

Its all right. Let the self-conceited ignoramus, who sneers at *book larnin* and who holds that no man can teach him anything in the art of farming, turn his crops over to the hogs and beg bread in harvest time. The provident man who has learned that everything has its law, and who has done his best to acquire a knowledge of that law, and to practice in accordance therewith, will have enough and some to spare. They both have their reward—the conceited blunderhead and the intelligent observer and student of nature.

But of what use are reproaches now? Only this—that they may stimulate Mr. Slack and

Mr. Stupid to act a little more sensibly next year.

And there is one thing that may yet be done to mitigate the severity of the drouth so far as its affects are felt by such crops as may be cultivated. The ground may be *deeply and frequently stirred* by the cultivator and the shovel plow. No matter if the dust rise in clouds so that you can hardly see your team. It will pay to plow and cultivate still. Keep the teams agoing then.

Another thought: The drouth, however severe in its effects upon the present crops, is not without its compensations. The surface being exhausted of its moisture, the moisture brought from the sub-soil by the force of capillay attraction, will bring with it to the surface such minerals as are capable of being held in solution, and thus fertilize it for subsequent crops.

It was so in in 1858–9. The drouth was a serious damage, but, the subsequent year, as we publicly predicted it would gave us the greatest crop the country ever saw, viz: over twenty-seven millions bushels of wheat, and other crops in proportion! This year it seems inevitable that we should fall short of a respectable average. Indeed if the wheat crop is not very soon relieved (we write this on the 17th June,) it must be less than half a crop. But then next year, or at the farthest, in 1866, and for some years after, we may reasonably hope, if we do our duty, to have great crops again.

Still another thought: As a class, we farmers have the name of being very great grumblers. It is always too wet or too cold, too hot or too dry, or some circumstance more serious than any one of these, stands in the way of our success. There is some truth in this charge. We do grumble too much. For four years now we have had abundant harvests and pretty fair prices for everything we have raised—very extravagant prices for some things, though no more extravagant perhaps than the prices of many articles we have had to buy. We have generally succeeded in paying off our old debts, and some of us have money in bank waiting for our decision as to the best and safest way of investing it.—Should we lose half our average crop this year we shall still be able to live and grind through the pinch.

Keep out of Debt.

The words above may seem ominous of a grave moral or financial lecture, nevertheless we do not intend to air our conscience nor our figures by any such effort.

We know it is chronic with some men and women to be in debt, and they would be deprived of an accustomed stimulant, to live without having their memories jogged occasionally about certain long bills that stand against them on Mr. A's or Mr. B's books. They would not know how to enjoy life unless they were compelled to pay every dollar, so soon as obtained, for demolished hats and bonnets, or for tea and sugar that were long ago consumed, or for dilapidated plows, harrows, &c. These people enjoy their misery much as some old ladies "enjoy poor health."

Exhorting such does no good—they must find out for themselves where, in their affairs, the depleting sore is—then, perhaps, they will say in the crispy language of a club in Henry county—

"*Resolved*, That we are in debt—that is what ails us."

The debts which we intend to just touch upon now, and which we advise our friends to avoid, are those which are often incurred ignorantly. But some farmers even ignore the fact that they are allowing such bills to accumulate against them, and in practice will not admit that they owe anything to the soil. "Our prairie land is rich," they say, "and will never wear out." The same was said years ago of one of the most glorious regions in our country, which is now called "the worn out lands."

The wealth that is carted off from a farm in the shape of crops, season after season, necessarily removes materials that build and feed the plants. Every plant that grows upon a farm has, bound up in it, materials for making a new vegetable growth. Every dead animal that decomposes on a farm passes into stimulants that would, if applied, make growing grains swell with fatness or silken petals spread in beauty.

All waste matter from the house old boots and shoes, old hats, rags, paper, and bones, all—everything that can be mentioned contains the elements for building up new plants. When the farmer shall learn how to collect the rubbish and waste about house, barn and farm, and to convert them into fermenting heaps to replenish the materials removed in his crops, he will have learned one important means for—keeping out of debt to his farm. —*Farmers' Advocate.*

Farmers' Clubs.

ED. FARMER:—Why cannot the farmers of this country combine for the purpose of self-protection, as well as merchants, mechanics or manufacturers? Farmers take their staple production (wheat) to market, and take just what the speculator feels disposed to give him, takes his money, goes to the merchant or manufacturer and has to pay their prices for what he wants. Thus others control both the price of what he buys and sells, so you see "Turkey comes on his side nary time." This is unfair.

The farmer gets no more now for his wheat than when cottons were from 6 to 12 cents a yard, sugar from 8 to 12 cents a pound, coffee 14 to to 22, and labor from $10 to $12 a month. How can the farmer stand this?

I say let every school district form a Farmer's Club, and when a sufficient number have thus been formed, let each club elect one or more delegates and form a County Club; then each county elect its delegates and form a State Club; and State send delegates to a National Club, thus forming a complete union of all the farmers of our country for self-protection.

We have just organized a club here. Our next question or subject for debate is concerning that infernal pest to all farmers, cattle running at large. We do not propose to be compelled to sell our wheat at $1 and $1.10 a bushel, and pasture everybody's cattle for nothing, much longer.

I would like to hear from some able pen on this subject. A. H. EDWARDS.

BEAVER DAM, WIS.

Ventilating Hay-Mows.

A correspondent of the *Cultivator* writes: Ventilating large bodies of hay is not often practiced, and results in mow heat hay, when it is not thoroughly cured. In the summer of 1861, I filled a bay thirty-four by twenty-two feet, and eighteen feet high; as I supposed, *well cured*. Soon after it was filled, I had occasion to visit the mow, and found that a large amount of steam or vapor was rising from the hay. I took a hay-knife and cut two round holes four feet in diameter and five feet deep, which, when done, had the appearance of an escape pipe from a steam boiler. The work of cutting was a good steam bath. The heat subsided in a few days, and the hay came out bright.

Last year I constructed a ventilator in the same bay, of four scantling, with rounds two and a half feet long and fifteen inches apart, and placed it in the centre of the bay, over a hole in the floor connecting with the air outside. It is in fact a four sided ladder. I saw no signs of steam on the mow after it was filled.

VENTILATING HAY STACKS.

It is not every farmer who has barn-room for all the hay that he cuts, and must necessarily stack some of it out of doors. Newly made hay, when exposed to the weather in the stack, is more liable to injury from heat than that which is put into the barn. It also not unfrequently occurs that from threatened bad weather, or in order to secure hay which is cut near the close of the week, that it is put up before it is thoroughly cured. Injury from these causes may be entirely prevented by exercising a little care in ventilating the stack when it is put up. With this precaution, hay that is quite green will cure finely in the stack, and come out sweeter and better than that which is exposed to the sun in curing. Our practice has been, first to lay a good foundation for the stack, of old rails or poles, laying two tiers, and crossing them; then to stand five or six others up in the centre, eight feet long and two feet apart at the bottom, the ends coming together at the top. If these are allowed to extend to the top of the stack, they will be in the way of finishing off, as the stack diminishes.

Garnet's Chili Potato.

Hear what Prof. North, of Hamilton College said, in his address at the Fair of the Kirtland Agricultural Society in October last:

"Among farmers and gardeners the Garnet potato is almost as much talked about to-day as the war and the draft. Wherever three neighbors meet, there is a social excitement over the Garnet potato. Thrice happy is the wide-awake farmer who had the forethought to plant Garnets. Four times miserable are the old fogies who clung to Pinkeyes and Carters. A man rich in Garnets can be recognized a great way off by his jubilant countenance. Our President could hardly spare time to attend to the Fair to-day, he is so flooded with orders for Garnet potatoes. Everybody insists on this Hibernian jewel and nothing else. The Garnet Chili potato is the most hardy and popular variety now cultivated in the Northern States."

International Exhibitions---Fair of 1862.

In the last No. of this Journal we completed our series of articles descriptive of the Great Exhibition of the Industry of all Nations, held at London during the summer of 1862. It was our intention to have concluded with a general summary, setting forth in rapid sketch the great outlines of that magnificent and memorable collection of the products of the industry of the various nations of the world. Space did not permit, however, and we simply propose in this brief article again to endeavor to impress it upon the minds of our readers that America, while she did admirably what she finally attempted, made a very grave mistake in failing to early attempt and as thoroughly accomplish the vastly more creditable and conspicuous showing that it lay in her power to make. It was an opportunity lost that can never be regained. We were fairly engaged in a desperate struggle, with an intestine and powerful foe, yet had really the ability to compete successfully in the departments of industry with the greatest nations of the globe. This, through the mulishness of the Secretary of State, we neglected to prove; and consequently, instead of challenging the admiration and compelling the deferential respect of the Great Powers, we voluntarily put ourselves in an attitude which could only provoke their affected regret and patronizing contempt.

But the past we cannot help. The present and future are alone possible to us. Let us be wise next time. And inasmuch as the Emperor of France has given due notice that a Grand International Exhibition will be held in Paris in 1867, the active friends of industry should begin in time to shape their plans with reference thereto.

International Exhibitions by the scientific and practical information thus originated, and diffused, as well as by their social advantages, are capable of contributing much to the progress of the world in the arts of civilization, and to the unity and peace of mankind. In 1867 we trust America will prove her wisdom and philanthropy by nobly standing in her right place at that great gathering of the nations.

Flax—Harvesting and Preparing for Market.

The following is from the pen of T. B. Miner, editor of the *Rural American*. Those of our readers who are cultivating flax will have pleasure in reading it:

The first operation consists in separating the seed from the fibre. My Tennessee correspondent says that he generally first carried the fibre to the barn, where it is rippled; but the English and Irish method is to ripple in the field at the time of pulling. The apparatus for rippling consists of a row of iron teeth, screwed, or otherwise secured, into a block of wood. The teeth are made of half-iron, square rods, and so placed in the block as to have the angles towards the operator. They should be three-sixteenths of an inch apart at the bottom, eighteen inches long, and tapering to a point, commencing two inches from the top.

The ripple is secured to a plank about nine feet long, which should rest on two stools, or have legs attached to it, so as to stand about the height of a chair. The ripplers then take their positions upon the plank, one on each side of the ripple, with a capacious winnowing sheet spread under them to receive the balls as they are rippled off. The flax being brought and laid at the right hands of the ripplers, it is taken by them, about six inches from the roots, with one hand, and nearer the tops with the other, spreading the tops like a fan, drawing one half through the comb, then the other half by a turn of the wrist, and the operation is complete. The ripplers so time their movements as not to interfere with each other in drawing the flax through the ripple.

ROTTIN

There are two methods of rotting; one, dew rotting, and the other, water rotting. My Tennessee correspondent says, in regard to the former, which appears to be the system adopted there:

"Dew rotting is done by spreading the flax upon the grass in some convenient field and letting it remain there till it is sufficiently rotted to be scutched to the best advantage."

That is not very definite, but the report of the Irish Agricultural Society, now before me, is quite clear in its details of the foreign system of water rotting. "Steep pools" are made 12 feet long, 18 feet long, and from 3½ to 4 feet deep. River or brook water is better than that from springs; and the pools are so constructed that a gentle flow of water is constantly passing through them. The flax is put into the pools in sheaves, somewhat sloped

in regular rows, carrying forward the roots of each layer to the bands of the sheaves below it. A layer of rushes or weeds is laid on the upper course, upon which a covering of sods or other convenient material is placed, sufficient to keep all the flax just under water when it is let into the pools. As the fermentation proceeds, some additional weight should be added, to be removed as soon as the fermentation cesses. Flax thus covered does not sink to the bottom, and is not affected by light and air. The process of steeping requires from 8 to 14 days, according to the heat of the weather and the temperature of the water.

SPREADING.

Select a clean, smooth pasture or closely cut meadow land, lay the flax evenly on the grass in long rows, spread it thin, and 6 to 8 days, if the weather be showery, and 10 to 12 days, if it be dry, is a sufficient time for the flax to remain on the grass—say ten days in ordinary weather. It must be thoroughly dried by the sun before it is removed for scutching.

DRYING BY STEAM.

A correspondent of the Belfast (Ireland) *News*, who has devoted thirty years to the scutching of flax, and the invention of machinery therefor, says:

"I particularly wish to call the attention of flax-spinners to the plan of drying the flax by steam, as not only quality but quantity is improved, and that to an extent they would scarcely credit. We should have the flax brought into a suitable state by *steam* drying, none other being so safe or so good. It will then be in a fit state for the scutcher. In fact none but those who have seen it can imagine the difference there is in scutching a dry, as compared with a damp strick of flax; and all the fine flax is as much improved in quality as quantity. When prepared in this way with steam drying, and carefully put through patent rollers, then it is fit to be put into the scutcher's hands, but not before."

MACHINERY FOR SCUTCHING.

The Clayville Company have a machine, which cost, with gearing, about $350. It is run by water power, which is the cheapest power that can be used.

There is also a company in Lockport, N. Y., styled "*Lockport Flak Cotton Co.*" who are making very handsome goods from flax. This Association, I presume, is ready to give any information in regard to scutching machinery, &c., that may be requested of them.

The editor of the *Canadian Agriculturist* says:

"Rowan & Sons' scutching machine, manufactured at Belfast, Ireland, is, we believe, as land about £20 to £25 sterling, and could be imported to this country for about $150 to $180, including cost, freight and duty. There are several of these mills in the country already, and they have been found to work satisfactorily The cost of the motive power, whether horse or steam, would be, say not over $300, to $400, and the entire capital required to establish such a machine in operation, would not exceed $500."

The flax machines lately invented in New England, are sold at $350, and will scutch from 2,000 to 2,500 lbs of flag straw per day of 10 hours.

A new machine for scutching has recently been invented by Messrs. Mallory and Sanford, corner of Center and White streets, New York, which is said to have been used in the flax mill at Union village, Renselaer Co., N. Y., with the following results:

"500 lbs. dressed flax, 16 lbs. coarse tow, and 8 lbs. fine tow."

From this result a ton of flax straw, the ordinary produce of an acre in this country, will give 442 lbs. of dressed flax, worth $110 50 at present prices, besides tow. The expense of scutching a ton, to the owner of a machine run by water power, is only the wages of two men for a day.

Hurry in Farming.

We hurry in plowing, and plow too wet; and is not this the case in harrowing, too? This is a universal evil. How often do we hoe, i e. many people do, when the hoe has to be constantly cleaned. When the dew is the cause of this, it is, on the other hand, a good sign, as it shows the man up early. But when the soil wets your hoe, you are sinning against it. If there is an excuse here, it is in favor of hoeing potatoes; it gets the hill moist. In no case should dry ground be drawn up against a hill, as a soaking rain will not soak it.

But it is good to make fence in wet time, when you have stakes to drive. Always remember that.

It is bad policy to hurry in your hay; cut in the morning, and draw it in the same day, even if pretty ripe. You hurry it in, and it will take its time to sweat and steam in the mow; an operation which should be performed in the cock. Many people have not yet learned this; and they have always poor hay; musty, to a greater or less degree, even if it retains its green tint. The must is still there, and that is hurtful, especially to some kinds of stock.

We should hurry, however, to get our seed in as soon as possible; our crops harvested as soon as can be, but each in its time without forcing it. Hurry is not always in hard labor, but in doing a thing in its proper time.—*Val-*

A Word to County Agricultural Societies.

Many of you have spiritedly resolved to hold exhibitions the coming fall. To such we would say, go ahead, your enterprise merits success, and will insure it. Some have made efforts to revive sleeping organizations, or to create new ones in counties where they have not yet been formed. To you, courage!

There never was a time when a county fair has been able to accomplish so much good. Let there be no failures.

Another word: Give us a report of your intentions at the earliest moment, particularly the times and places of your respective fairs, for publication in the FARMER. Such publication will be your best advertisement, and will not cost you a cent. Exhibitors of patent implements and machines often apply to us for such information, so as to plan to attend your fairs, and we are unable to give them the desired information.

Another word: The State Society offers a splendid Prize Banner, as in 1860, to that County Society whose county shall make the best exhibition (all things considered) at the coming State Fair.

Are you not all of you going to compete? Talk the matter up at once, and let the fires of enthusiasm be kindled. Now is the time. Don't wait.

Profitable Wool Growing.

A. Ludlow, Esq. has kindly furnished us with the following item, from which it will be seen that sheep-raising is fast becoming one of the most profitable branches of business to which the farmer can turn his attention: Mr. L. sheared this spring 454 sheep, getting from them 2,794½ pounds of wool, which he sold at 65 cents a pound, receiving for it the round sum of $1,816.42. It will be seen by computation that this is an average of 6 lbs., 2½ oz. to the fleece, the cash value of which was $4 to each head of sheep. When we take into consideration that no special effort has been made to select large sheep, but that the fleeces are taken from a whole flock as they run, it speaks well for Mr. Ludlow's care of stock and skill in improving it. If any of our cotemporaries can beat this, we shall be pleased to see the figures.—*Ex.*

Tobacco Experience.

MR EDITOR:—As for tobacco, I raised some over one acre last year of nice tobacco, and got it well ripened before the frost hurt it. I have it well cured, but there seems to be no market justifying sale. Those Milwaukee sharks were here, and bought up some poor frost bitten tobacco at four cents a pound, but I can't afford to sell mine for less than eight cents a pound, and not even for that, in case the high revenue bill is passed.

There is a good deal of tobacco raised in this section of the country. There are a good many Kentuckians here, and they all raise tobacco; and as for seed, there is any amount in the neighborhood. I raised over a pint last year, and so did others. Every one that raised tobacco raised their own seed and some for their neighbors. LEVI HOUTS.

ORION, WIS.

Prepare for the State Fair!

The drouth, it is feared, may discourage some about trying to make an exhibition of the products of the earth at the approaching State Fair. We hope not. All are in the same boat, since the drouth is universal. Let each one do his best. The results will compare *with each other* just as well this year as ever. Hold up your heads, oh ye disconsolate farmers. Stock-raisers and manufacturers must do enough better than ever before to still advance the average results of this Fair, notwithstanding the discouragements.

Green Crops as Manure.

We hear every day more and more of plowing in green crops. This is well—it is excellent. It not only pulverizes the soil by fermentation and tillage, but—and here is the nice point—the crop draws nutriment in two ways—from the sub-soil and from the atmosphere, and brings it within reach of the grains, among the tillable soil, besides enriching the sub-soil with its long roots (of clover). Thus, the soil that has lain dormant in the depths, is drawn upon for supply, and at the same time prepared (by the tillage of the roots and the nourishment they afford) for corn and other long-rooted grains. But the atmosphere is made to impart most—and this is all clear gain.

So beneficial is the green crop, that even a well manured soil is treated to it in some parts of the world—in Italy, for instance. The green crop contains what the soil held in solution, ready for use—and this, by plowing in, gives it back to the soil again, where it is held in solution as before, ready, with increased amount, for the next crop.

But many farmers are afraid of the labor of plowing in—and the "waste of land," as they term it. Let such men alone—they are lazy—and, in the best case, will do little for the improvement of the world. But, to those who are willing to do their share, and to avail themselves of all the benefits within their reach, we will say—a green crop may be plowed in, and followed (the same season,) by winter grain, or by turnips, or buckwheat, or other grains.

Particularly is the green crop the thing for uplands, which cannot well be reached by manure in any other way. Peas, buckwheat, clover, are all excellent crops to grow in. For corn, clover would perhaps be preferable—certainly excellent. Where there is a will to do, the thing will be done. And the plowing in of green crops, especially on uplands, is one of the necessities of the time, as well as one of its greatest benefits

Repellents of the Turnip Fly.

All turnip cultivators know that the crop is very liable to injury, when in the "seed-leaf," by the attack of a small insect of the genius *Heltica*, commonly called the turnip fly. Various prescriptions have been given to prevent the ravages of this insect, but in most cases they have proved of little value. We give below some recipes which we have not known tried. We find the first in the Canadian Agriculturist, in which it is said to have been used for several years, with great advantage by E. G. O'Brien, of Shanty Bay.

Oil of turpentine, one teaspoonful to one pound of seed, stirred till the oil is absorbed, and the seed, held between the eye and the light, will have a shining appearance. The seed should then be immediately sown.

"The writer of this paragraph has, on several occasions, used fish-oil in a similar way, and always with favorable results, but whether the safety of the plant was due to the perscription, or to some other favoring circumstance, he could not feel very confident."

The following is taken from the Mark Lane *Express*, to which it was communicated by E. Umbers, of Warwickshire, who states that it has stood the test of eleven or twelve years, without a single instance of failure:

"To one gallon of chamber-lye add 2 oz. of tincture of assafœtida. Soak the seed in the mixture 24 hours, and dry it in the shade. The drying requires the greatest care, as the sun evaporates the strength and utterly spoils the recipe. I always dry my own upon a barn floor, where neither sun nor wind can affect

The Farmer's Home.

My banks they are furnished with bees
  Whose murmur invites one to sleep;
My grottoes are shaded with trees,
  My hills whitened over with sheep.
I seldom have met with a loss,
  Such health do my fountains bestow,
My fountains, all bordered with moss,
  Where the harebells and violets grow.

Not a pine in the grove can be seen
  But with tendrils of woodbine is bound;
Not a beech's more beautiful green,
  But a sweetbrier twines it around.
Not my fields in the prime of the year
  More charms than my cattle unfold;
Not a brook that is limpid and clear
  But it glitters with fishes of gold.

I have found out a gift for my fair,
  I have found where the wood pigeons breed;
But let me such plunder forbear,
  She will say 'tis a barbarous deed,
For he ne'er could be true she averred,
  Who could rob a poor bird of its young;
And I loved her the more when I heard
  Such tenderness from her tongue.

—*Shenstone.*

What Can Be Done on One Acre.

The editor of an eastern journal published some years ago his management of one acre, with the following results:

One-third of an acre of corn usually produced thirty bushels of sound corn for grinding, besides some refuse. This quantity was sufficient for family use, and for fattening one large or two small hogs. From the same ground he obtained two or three hundred pumpkins, and his family supply of beans. From the same bed of six rods square, he usually obtained sixty bushels of onions; these he sold at one dollar per bushel, and the amount purchased his flour. Thus, from one-third of an acre and an onion bed, he obtained his breadstuffs. The rest of the ground was appropriated to all sorts of vegetables for summer and winter use—potatoes, beets, parsnips, cabbage, green corn, peas, beans, cucumbers, melons, squashes, &c., with fifty or sixty bushels of beets and carrots for the winter food of a cow. Then he had a flower garden, also raspberries, currants and gooseberries in great variety, and a few choice apple, plum, cherry, peach and quince trees.

Farming Habits.

Grain should be cut when the berry is out of the milk, and in the dough: never when ripe. The straw should be somewhat green—then, properly cured, somewhat as hay is cured; put up, and permitted to sweat, and then gathered in its yellow, fragrant condition. This is hay; next to Timothy; and the berry is all the brighter and heavier. This is getting to be pretty generally known, and

to harvest grain in this manner. It also secures the harvest from a week or two weeks earlier. Now this thing we neglect too much; some do not believe in it. But the most are negligent. So it is in putting in seed. We delay the matter too long in the first place; and in the second and most important place, we put it in too wet; we have either plowed it too wet, or we sometimes have harrowed it too wet. Harvest and seed-time should engage the farmer's attention, if anything.

Salting Cheese.

In salting cheese the general practice dairymen is to draw the curd or whey, and then apply salt, in proportion of one pound of salt (a pure article, to from 40 to 50 pounds of cheese, according to the time chesse is designed to be marketed. The question has occurred to many, whether the salt could not be more easily incorporated by salting the milk, or applying it after coagulation and when the curd is sufficiently cooked. From experiments made in salting milk, it seems the cheese manufactured was of good quality, but the proportion of salt required was at the rate of three and a quarter ounces to the gallon of milk, or eight pounds two ounces of salt to 40 gallons, or about 40 pounds of cheese. The objection to salting in the milk is, that the whey is unfit for pigs, and the large quantity of salt required. Mr. D'Angiles, of Oneida county, N. Y., has recently advocated the plan of salting the whey. His method is brifly as follows:

When the curd is about sufficiently cooked, most of the whey is drawn off, leaving just sufficient to hold the mass in a loose and finely divided state; the salt is then applied, and stirred through the mass. The advantages claimed are, that much labor is saved, that salt is more evenly distributed through the curd, which is not bruised, and the oily particles pressed out by rough handling.

This method is being adopted by some, the proportion of salt used being graduated by the amount of whey in the curd at the time of salting, and the character of the chesse to be manufactured.—*Trans. N. Y. Agricultural Society.*

Put in a Big Turnip Crop.

The drouth has so damaged both grain and grass crops that it behooves the farmer to make the most of the chances left to him. And thi is why we say, put in a big turnip crop. Turnips will pay.—Your cattle and sheep will want them, and your own table will be none the worse for them.

STOCK REGISTER.

Salt for Stock.—Food vs. Poison.

Ed. Farmer:—In the June No. W. P. Underwood advocates the theory that as salt in large doses is poison, it must consequently be proportionately injurious in smaller doses. He says that food is food in any quantity, and that poison is poison however small the dose. This sounds plausible enough; but the question is, what do we mean by food?

The general definition of the term would, perhaps, be "anything that tends either to delvop the body or, when developed, to supply the waste so as to maintain vigor and health. The food of animals consists of organized substances,—that is substances composed of various elements brought into composition by the activity of the organism. The food of all animals, then, must be compound, and not simple. A common food is hay; but what do we feed our stock every time we feed out 100 pounds of hay? According to chemists it is this:

Carbonic, phosphoric and sulphuric acids	15.4
Chlorine	2.6
Lime, magnesia, potash, soda	48.6
Silica, (sand!) &c	33.4

Now, according to the test given in the article referred to, let any one try the acids or the potash by "dissolving it upon the tongue" and perhaps they would be willing to call them "irritant poisons." If so in large quantities equally so in small. If so when free, equally so when compounded. Is sand food? Why, it forms one-third of hay. Are lime, potash, magnesia, soda, food? And yet they form nearly one-half of hay!

Bread is called the "staff of life." But do you call such an agglomeration of "irritant poisons" as the following food? Is it possible that every 100 pounds of wheat contains

Phosphoric acid	47.
Sulphuric "	1.
Lime, magnesia, potash	48.3
Silica, &c	3.7

Now if that "irritant poison" phosphoric acid forms nearly one-half of bread, and those other equally "irritant poisons" lime, magnesia and soda, nearly the other half, by

what rule of common sense can we call bread food? Why phosporous forms Costar's Rat Exterminator, which is generally admitted to be poisionous. If so in small doses, mixed with lard, why not equally so in large doses mixed with such nourishing substances as lime and potash?

Salt is composed of chlorine and soda. These elements are found in nearly all articles of common food. Nearly all well water contains traces of common salt. The last report of the British Association says "Chlorine in some form is essential to all animal life." The Chlorides and other salts of potash and soda form nearly eight parts in 1000 of the blood. The gastric juice contains hydrochloric acid—one of the most powerful solvents known. The moisture of the flesh consists of water and hydrochlorate of soda. Tears and the humors of the eye contain soda and common salt. The same may be said of sweat and urine. The brain and nerves contain soda.

Thus we see that a healthy animal requires both soda and chlorine, and the two combined in the proportion we find them in common salt. And as they cannot be given by inoculation, the most natural way to supply them is by the food; and if the food for any reason is deficient, the most rational method is to supply it otherwise—whether we call it poison or not. An abundance of bile in the stomach is not pleasant,—nay positively poisonous, unless corrected. Well then, a smaller quantity is poisonous also, and the Creator made a great mistake in putting a gall-cyst in every liver, to secrete its slow poison. Milk contains phosporous—a deadly poison—and, poison being poison, every mother gradually poisons her child, by giving it minute doses of Rat Exterminator! The idea is horrible. And as they grow up, they are fed on bread, nearly one-half of which is phosporous—a terrible poison. What a family of Borgias our mothers are!

But seeing that we are thus nothing but a bundle of "irritant poisons" and our food equally "poisonous"—what shall we do? If we avoid salt how about the potash? and if potash, how about lime?

We see, thus, that if "food is food and poison is poison, whatever the quantitity," that we must reject all food, unless we would be gradually poisoned by its chlorine and phosporous, or be gnawed and eaten up finally by those terrible acids, sulphuric, phosporic, &c., or those fierce caustics, lime and potash. If we were to run any risk, it would be to choose salt to potash, chlorine to phosporous.

S. H. CARPENTER.

Stretches in Sheep Again.

MR. EDITOR:—In the last number of the FARMER I see a remedy for stretches in sheep by Mr. T. Hall, which I have found to be a good remedy *sometimes.*

Like him, till within seven or eight years, I have lost sheep "annually" with this disease, but within that time I have succeeded in curing every case in the following manner:

I take the sheep by the hind legs, raising it as high as I can, and yet let it stand on the forward feet, then place my knee against the belly of the animal and raise it clear from the ground, letting it drop heavily upon the forward feet about a dozen times. If this does not effect a cure in three or four hours, the remedy should be repeated, but this is rarely necessary. The time required will not exceed two minutes, and I have never failed to effect a cure by this treatment.

It should be adopted *immediately* when a sheep is seen stretching, as twelve hours delay, or even less, might prove fatal.

ABRAM THOMAS.

RIPON, April 14, 1864.

[Pretty severe, neighbor. We would like a gentler remedy.—ED.]

CABBAGE FOR STOCK.—A correspondent of the *Mark Lane Express*, who highly extols the cabbage for feeding milch cows, store cattle, sheep and swine, and more especially for spring feeding of lambing ewes, says that the average product per acre in England may be stated at twenty-five tons.

Some of the British Breeds of Sheep.

NO. IV.—THE WELSH SHEEP

Is noted in Great Britain for the deliciousness of its mutton, which is thought to surpass that of all other breeds. It is hardy and is easily kept, but in other respects has but little to recommend it. The lover of mutton who has once tasted the highly flavored flesh, it is said, will afterwards only tolerate the more ordinary kinds of mutton, and so, notwithstanding the lightness of its carcass, and its consequent unprofitableness to the stock-raiser, the Welsh sheep is bound always to be popular with those who can afford to consume its flesh at a higher price.

In appearance, the Welsh sheep is very singular. Small, angular, slender-limbed and nimble, head rather large in proportion to the size of the body, and carried high, being even curved backward when the animal stands in its natural position; horns short; face and legs black or brownish; fleece greyish white.

We have never seen any specimens of this breed in the United States, and do not suppose they will be likely to be introduced here, except as a novelty, or to gratify an occasional self-indulgent epicure.

Insect Pests upon Animals.

All of our domestics animals are apt to be annoyed with vermin, which a little of the right kind of knowledge and a little attention will readily disperse. In some periods of hot weather, flies, especially of the Tabanidæ variety, are particularly troublesome. They will render a spirited horse unmanageable, and will often drive cattle from the pasture. Of sheep, the "Ettrick Shepherd" says, "The flies were at this time settled in the fold in such numbers that we could, with difficulty, see each other. The heads of the sheep were swollen and black, and seemed a scab all over, the flies settled on them like a black cloud. A few were annointed with train oil, and no sooner were they turned in amongst the others than in a few minutes not a fly was to be seen." Spirit of tar added to the oil makes it more efficacious, and as the flies will not face these remedies when applied to sheep, horses and cattle, should surely be protected by them.

Fleas are very troublesome to dogs. Washing and combing are not without efficacy. Tobacco water may be used, though it frequently poisons the dog. Mr. Blain says, "the tolerable certain cure, I know, is to make the dog sleep on fresh yellow deal shavings. Rosin and bran in powder may be usefully applied; oil, however, is believed to be specific.

Lice on horses, cattle, sheep and dogs, are another pest. For these we have inviarably found oil a specific. In horses, the prevalence of this filthy vermin, shows want of proper cleaning, although it is oftentimes connected with poverty and mange. In the slighter visitations, we have invariable found that olive oil alone will cause their disap-

pearance from all of the above named animals. Corrosive sublimate may be used, but it requires great caution in the application. Ticks in sheep are another nuisance. A mixture of tar and turpentine with oil is a speedy and certain poison for them.

Maggots in sheep, sometimes a most fatal vermin, require the utmost care and vigilance. As soon as they are observed, the parts affected should be deprived of the wool, clipped as close to the skin as possible, and the part annointed with spirits of turpentine and oil, with tar, or with a solution of corrosive sublimate, either of which will prove a speedy and perfect cure.—*R. McClure.*

Teething in Horses.

There is no doubt that many young colts suffer as much pain in cutting their teeth as in the case of children; and the pain does not always arise, as some people suppose, from irritation of the mucous membrane of the mouth, occasioned by the point of the tooth, but frequently from pressure on, and irritation of the dental nerve. The remedy (instead of tormenting the suffering creature with a red hot iron for the purpose of "burning out the lampas," as some persons profess to do,) is a common thumb lancent. Make an incision through the gum, or mucous membrane of the mouth, in the region of the tusks or incisors, wherever the difficulty may be, and relief is almost immediate. This is a sure remedy to relieve local distension of the mucous membrane of the mouth if it exist, and at the same time prevents the fang of the tooth from irritating the dental nerve.

SHARP AND PROJECTING TEETH.

Owing to the unequal wear of some horse's teeth they become sharp on the outside margin, and are then apt to irritate and perhaps lacerate the buccal membrane of the cheeks. Should this be the case, we generally find that the salivary secretion is augmented, mastication is imperfect, and the subject generally loses flesh, and appears unthrifty. The remedy is a mouth rasp. By means of this instrument the sharp or projecting edges may be smoothed.

INFLAMED AND TENDER MOUTH.

Inflamation, tenderness and tumefaction of the horse's mouth, arising from whatever cause it may, generally indicate the application of cooling and astringent lotions; and light diet of bran mashes, cooling lotion, composed of solution of hydrochlorate of ammonia, or chlorate potassa, are indicated when the mouth is hot or inflamed. A tender mouth, accompanied by corrugation and relaxation of the soft palate, known as "lampas," requires a few applications of some astringent lotion, made of alum, gum catechu, raspberry leaves, white oak bark, or diluted tincture of muriate of iron.

Diarrhœa in Calves.

Diarrhœa is a very prevalent disease among calves. The sucking calf is liable to be the subject of this affection, whenever the general health of the parent is impaired. In such cases the mother is to be treated instead of the calf; she, probably, is the subject of a deranged condition of the digestive organs, which can easily be remedied by the administration of a few doses of the following: Pulverised charcoal, Carbonate of soda, Pulverised ginger, equal parts.

Dose.—Two ounces, daily, to be incorporated with the food, or it can be given as a drench, by adding a point of scalded milk.

The disease occasionally occurs in consequence of weaning the calf, (in view of husbanding the cow's milk,) and feeding the juvenile on improper food. This kind of diarrhœa must be treated as follows: let the calf have two ounces of phosphate of lime, two drachms of phosphate of lime, two drachms of corbonate of soda, and a quart of scalded milk; mix the same, and administer by means of a drenching horn, or bottle. It may be divided into "broken" doses, or may be given at once, as a single dose.

If the above remedies fail in arresting the diarrhœa, I should give three drachms of tincture of matico, every four hours, until the patient showed some singn of improvement.—*Dr. Dadd.*

THE BEE-KEEPER.

Bee-Keepers' Convention.

The Bee-Keepers' Convention for Wisconsin, was held, pursuant to call, at the State Agricultural Rooms in Madison, June 16. Called to order by the Editor of the FARMER, and organized by the election of the Hon. M. K. Young, President, and James Bullard, Esq., Secretary.

Tee atetndance, though not large, was quite respectable, and the discussions were full of interest and profit to those who attended.

Owing to the fact that at the same time there was a State Editorial Convention in session at the Capitol, we were unable to be present much of the time, and cannot, therefore, give a full report of the proceedings. The methods of handling bees, the causes of the extraordinary fatality to bees of the present winter, the construction of different kinds of hives, and other themes were considered.

Messrs. Bullard and Hoxie, agents for the Kidder Hive, were the only representatives of patent hives present. Whether the friends and agents of the Langstroth, Lee and other movable comb hives, failed to see the call in time, or whether they were unwilling to meet the champions of the Kidder Hive, it is not for us to say.

We had hoped for a full report of this convention for publication in the present No. but as the Secretary has failed to furnish it up to this date, we must proceed without it.

Before adjournment the convention organized a permanent association, with the President and Secretary of the convention as officers, and resolved to meet again in annual convention in the State Agricultural Rooms, on the 18th day of May, 1865, extending a cordial invitation to all the friends of bee culture throughout the Western States.

Artificial Swarming of Bees.

I propose to give for the benefit of your bee-keeping readers, an outline of a system practiced by me, whereby swarming is accomplished artificially, and the stock multiplied with the same certainty, and by a method similar to that adopted by the farmer in multiplying flocks and herds. What I shall give will be found demonstrably true and entirely practicable, even to those to who use the common box-hive, so that I think no one need suspect me of having an "ax to grind," at any rate.

When the drones appear in the spring and the hives are full of comb and bees, is the time to swarm them by this process. It never should be attempted after a swarm has issued in the natural way, nor should a second one be obtained in less than twenty-five days after the first.

In the middle of a pleasant day when the bees are abroad, go to the hive and blow into it at the bottom, a few whiffs of smoke from a pipe of tobacco, or a roll of cotton rags. Let enough smoke go into the hive to arouse the bees and set them to seizing on honey—which will be known by a long buzzing within the hive—but not enough to stupify them. Let the hive stand five minutes, until you blow a little smoke into all the hives within four or five rods; now gently raise one edge of the hive and blow in a little more, and immediately remove them three or four rods, carefully setting them down under a shade, if it is at hand, bottom up. By this time the bees will have become filled with honey, and will not sting unless you pinch them, or they are otherwise provoked. Place an empty hive or box over this hive, mouth to mouth; tack together with a couple of nails, and cork all crevices with rags. Now drum or rap on the sides of the bottom hive for about ten minutes; draw the nails, lay the sheet on the ground, and very carefully remove the top box, settling it down upon the sheet. Remove the old hive a few feet away, covering the mouth with a cloth.

Now, having another empty box, turn it down on the sheet with one edge up, after the manner of hiving a swarm of bees; then with a ladle or large spoon, slowly dip the bees from the box that contains them, and pour them down in front of the empty hive. If the weather is very hot, sprinkle slightly with water to prevent the queen from taking wing, and they will run in. Should there be several swarms where the old ones stood, and close to it, it would be well to cover them with a sheet while this is being done, to prevent the queen from entering them should she chance to fly.

As the bees are running into the empty box look out for the queen. She will be readily seen, as she is at this season nearly as large as a drone, and much larger than a worker-bee. Should she not be found immediately, reverse the boxes and try until found for she is among the bees sure, as she is among the first to leave the old hive upon inverting it.

When found, secure her as follows: Cut a piece of wire cloth, say 12 meshes to the inch, two by three inches, roll it round the finger in the form of a cylinder, pinch close one end, and putting the queen into it, close the other end with a cork. She can be safely taken by the wings in your fingers, for she will not sting however roughly she is handled. Now place your old hive on a new stand, at least four rods from where it stood before, and put the bees into it, except about one pint; these put into a new hive on the old stand, having a hole in the top, one and a half or two inches in diameter, through which the queen cage is suspended by means of a wire two or three inches long, with a block over it to keep out the light.

The sheets are now removed from the other hives, and you will find daily additions to the new hive from the old one, as it occupies the old familiar spot, while the old one will retain the young brood, of which great numbers will be hatched daily. The third day, about an hour before sundown, blow a whiff into the top of the new hive, draw up the cage and release the queen—put her by the entrance, and she will go in at once. Considerable comb will have been already built, and by morning the breeding cells will be stocked with the eggs. Thus you will have swarmed your bees certainly, and without watching them, or of running the risk of their leaving for the woods.

By one who has performed this operation a few times, the queen may be found in three

minutes, by simply turning up the hive and blowing the smoke into one side, looking for her among the bees running up and over the opposite side, accomplishing the feat of artificially swarming a hive from the old box, in the necessary to hive a natural swarm.

One word to those who practice artificial swarming by this method or any other. Queen cells can be procured by simply caring for the queen, as above, without removing her from the hive. This expedites the business and aids greatly in preparing queens; since it obviates the necessity of removing her to a strange colony. Some will ask how a queen will be supplied to the hive? In answer I will say, the bees will do this by raising one from the other worker brood already lain by the queen just removed.—*Michigan Farmer.*

THE POULTERER.

On the Management of Poultry.

Poultry, we understand to mean ducks of the different species, geese, Guinea fowls, peacocks, turkeys, chickens, &c., in their different varities. As the space devoted by the *Farmer* to the treaties on poultry is too small for the whole, I shall speak of the management of those most common.

TURKEYS AND CHICKENS.

There is as much difference in the management of these, as there is in the management of children, with about the same results. There, observe the full fed, self-satisfied, matronly look of that hen! She picks around for her own amusement; here a worm, and there a bone, or charcoal, or broken oyster shell. and soon she is off to lay her accustomed egg, which, when done, is published to the world, with strong lungs and good digestive organs. Then look on the other side of the picture; the poor, puny pale comb of the ill-fed hen, one leg under her, while she has hardly strength to balance herself with the other. Into all kinds of mischief; the farmer's pest. We hear him exclaim—"I never saw such hens in my life! We must change the breed! Here we have to buy eggs at twenty-five cents a dozen, and have ever so many hens!"

Then, again, behold the full-fed monarch of the yard! How haughtily he spreads his wing's in the sun's rays, seeming to understand his nobility among his feathered wives, who, from their docile, happy looks, never venture we presume to dispute his right of sway.

On the other hand, did you ever see a lean turkey? If not, I will not mar this page by describing one.

Turkeys need about the same kind of management as that of chickens in respect to food, &c., though I think turkeys require less care. I have seen the best results from feeding them near the house for two or three weeks, with equal quantities of corn meal and curd from sour milk, and then leaving them to scratch for themselves; save once in a while looking after them with feed to keep them from straying far away.

This kind of food (curd and a little meal,) is the best food for young chickens, and even when older they prefer it to any other. They should not be kept too long in the coop, as their growth will ve very much retarded, and they will be subject to many diseases. From two to three weeks I think long enough for them to remain in the coop.

Corn, without change of food, will fatten poultry; but they will fatten in much less time on corn with boiling water poured over it, and some kernels of wheat scattered through it.—*Genesee Farmer.*

PRESERVATION OF EGGS.—The best method I know of to preserve eggs, is to fill the pores of the shell with fresh, clean lard, so as exclude all the air. It is my opinion that this simple and easy method is preferable to any now in use. Some put them in lime water; some lay them down in salt; some put them in saw dust. But the lime cooks them, so that they have a dried appearance; salt has a similar effect, while eggs saturated with lard, as far as my experience goes, open fresh and nice.—*Cor. Cultivator.*

THE HORTICULTURIST.

A. G. HANFORD,.....CORRESPONDING EDITOR.

A Fine Fruit Show in Prospect.

The Fruit Department of the next State Fair promises to be a fine display, all things considered. Its immediate conduct has been entrusted to the Wisconsin Fruit Growers' Association, the Chairman of the Executive Committee of said Association being the Superintendent. There is a general waking up among the fruit-growers, and we are receiving strong assurances that no reasonable effort shall be omitted that would seem to guarantee the highest success of the exhibition in this interesting and very important branch.

The prize list is more liberal than any heretofore offered by either this or other State Agricultural Societies, and ought to insure a magnificent display.

The past severe winter has brought some discouragements to fruit-growers in Wiscon-

consin, and it behooves every zealous and determined cultivator to do his best to counteract the untoward influence resulting therefrom. Rally, friends, rally!

The Plum-Tree Wart.

From the fact that the larvæ of the curculio are often found in the singular excrescence called the black wart or knot, it has been inferred that this insect is the originator of the injury. E. Low, of Bangor, Me., writes to the *Gardener's monthly*, that he, several years since, adopted the plan of picking up and burning all the plums which fell from being bitten by the curculio. By this means he has obtained fine crops of plums, free from the attack of the insect. But he has found the wart or knot more troublesome. He says he has made it a rule to cut it out on its first appearance, "never leaving it on the tree over night; yet in the entire absence of the curculio on the fruit, I have had to use my knife on the knot more or less since march." The editor of the publication above named, says: "Many different insects have been raised from larvæ found in the plum knot. The peach borer and the plum curculio are very frequently found. In other galls but one insect is found, evidently the one that formed it. The fact of so many species being found in the plum knot, would seem to indicate that they instinctively feel that they have as good a right to the knot as the curculio."

Grape Hints.

Grapes coming in bearing should not be permitted to perfect large crops of fruit while young. It is excusable to fruit a bunch or so on a young vine, "just to test the kind," but no more should be permitted till the vine has age and strength. Vigorous growth, and great productiveness, are the antipodes of the vegetable world. Encourage as much foliage as possible on the vines, and aim to have as strong shoots at the base as at the top of the cane; this can be done by pinching out the points of the strong shoots after they have made a growth of five or six leaves. This will make the weak ones grow stronger. Young vines grow much faster over a twiggy branch, stuck in for support, than over a straight stick as a trellis, and generally do better every way Where extra fine bunches of grapes are desired, pinch back the shoot bearing it about four or five leaves above the bunch. This should not be done indiscriminately with all the bunches. Too much pinching and stopping injures the production of good wood for next season. These hints are for amateurs, who have a few vines on trellises; for large vineyard culture, though the same principles hold good, so far as they go, they will vary in their application.—*Gardener's Monthly.*

Planting Evergreen Trees in August and September.

Evergreens are always in leaf, and it is therefore important. in planting, to secure a quick action of the roots, in order to sustain the foliage. Early in the spring the ground is cold and wet, and the roots cannot take hold; and therefore sharp, drying winds are very likely to exhaust the tree of all its juices before a new supply can be furnished. Late fall planting is still worse—for the roots remain dormant a much longer time, and evaporation from the leaves is going on, to some extent, throughout the winter. In May and June the ground becomes warm—the roots are ready for action, and consequently, the time is favorable for removal.

But the conditions are even more favorable in August and September. At this season the ground is throughly warmed through, and as the nights begin to be cold and dewy, the earth gives, as it were, a gentle bottom heat. It is surprising to find with what readiness and vigor the roots now act—often showing signs of growth within three days after planting. There is this additional advantage over many,—that the tree has made all its growth for the season, and early matured its wood,—so that it is not in need of such a flow of sap as when the young growth is starting, or is succulent, and the plant has need of all its energies. During the autumn months, the earth being warmer than the atmosphere, while the wood is simply maturing, not growing, the roots on the contrary are in vigorous action, and will insure sufficient strength to resist the succeeding winter, and also the best possible condition for subsequent growth.—*Mass. Plowman.*

To Preserve Flowers in Form and Color.

The *Ohio Farmer* has the following directions upon this subject:

Procure a quantity of fine sand and wash it until it is entirely free from all dirt, and the water comes from it clear. Then with a fine sieve sift from it all the particles. It should then be sifted with a coarse sieve, taking from it all the coarse particles. The sand now, being perfectly dry, is ready for use. Place it in a dish, which should correspond in depth with the length of the flower stems which are to be used for drying. The flowers when picked should be perfectly dry or exempt from rain or dew. Insert the flower stems in the sand to the base of the flowers. Then with a steady hand sprinkle the sand evenly over the flowers until they are completely imbedded. Place them in a very dry place, either near the fire or in the sun, and let them remain several days. When perfectly dry the sand may be poured off. Double flowers with stiff petals are most easily preserved, but most varieties will well repay the little trouble and care required by this simple process.

Fruit-Raising Experience.

I will give you a short sketch of my fruit-growing operation in 1855. I quit the jack-plane and turned my attention to farming. I bought a place partially improved with no fruit growing. I bought 50 apple trees, and the cold winter and the deep snow they all froze but one tree, it being close to the house, and the snow was kept beat down in passing backwards and forwards, and it still lives and yields fruit. I was some discouraged then, but I concluded to try it again, and if I could raise no apples here I should leave the state. I went to Levi Stering's nursery and bought 150 apple trees and planted them on the south side of a hill, considerable steep, and my trees do all I could expect; they were loaded last season with fine apples. I am satisfied this will yet be a great fruit-growing country, when people get experience in the matter. One thing I see in this neighborhood, the settlers are generally from Kentucky and Indiana, and they, in setting their orchards, select a northern slope (or hill-side facing the north,) as they used to do where they came from, and their trees don't do well, and some even have changed their orchards to a different place in order to face the south, and do well. I also set me out a fruit garden well stocked with currants, gooseberries, grapes, plumbs, strawberries and cherries. We have plenty of that kind of fruit and some to spare. I procured the best currants from the cherry currant down, and gooseberries. I also have four different varieties. Grapes, I have the Clinton, Isabella, Catawba and two other varieties I have no name for. One is a white looking grape when ripe, and a little sweet, large size. Strawberries, the Peabodys is the largest I got. Cherries, the May duke is the hardiest tree I have. My best varieties English cherries kill down every winter. Flowers, my wife has that department, and I believe she has flowers nearly beyond number, I was going to say. She has secured all she could find nice here and at different other places, and her sister sends her all of the nicest California flowers she can get. Please excuse me with such a lengthy letter.

LEVI HOUTS.

From the Gardner's Almanac.

Qualities of Fine Vegetables.

The garden is the most important appendage to many of the substantial comforts, and some of the most refined luxuries of human sustenance. Its cultivation furnishes a source of health, pleasure and economy which may be enjoyed by every industrious owner of a few rods of ground, who can devote a little time between his hours of business or labor to this delightful employment. If his occupation and extent of his enclosure will allow him to indulge his taste for fruits and flowers, he may take much pleasure and derive great profit from the management of the vegetable garden alone.

For the purpose of selecting an assortment of the purest vegetables, best suited to the use for which they are grown, we have fixed upon certain qualities which we seek amongst the different kinds.

In the blood beet we always look for a deep color, smooth, handsome form, small top and sweet, tender flesh. In the orange carrot, small top, smooth root, and deep orange root' In the cabbage, short stump, large, compact head, with but few loose leaves. In the cucumber, straight, handsome form, and dark green color. In the lettuce, large close head, pleasant flavor, with the quality of standing the heat, without soon running to seed. In sweet corn, long ears, very shriveled grains filled over the end of the cob. In the cantelope melon, rough skin, thick, firm flesh, and high flavor. In the water melon, thin rind, abundant and well-flavored juice, and bright red core. In the onion, thick round shape, small neck, deep color, mild flavor, and good keeping quality. In the parsnip, small top, long, smooth root, rich flavor. In the pea, low growth, full pods, large and tender peas, rich flavor. In the scarlet radish, deep color, small top, clear root, and quick, free growth. In the squash, medium size, dry, fine-grained, deep-colored flesh. In turnips, handsome form, small tops and tap root, sweet crisp flesh.

Those who have never seen better sorts than they possess, suppose they are of the first quality, when they may be very inferror, or almst worthless, when compared with the finest varieties.

To Save Dahlias and Lillies.

Under this head, a correspondent of the *Rural New Yorker*, writing from Michigan, thus speaks of an insect that preys upon these plants in some parts of the country. This

worm, so far as we know, has not yet made its appearance in this section of the country. But, as with many other pests which are sure to follow in the wake of civilization, we may expect it along after a little while; hence we might as well be looking out for remedies. As the old adage goes, "to be forewarned is to be forearmed."

"I experiment more or less every year, and in my experiments I have discovered a sure remedy for the dahlia worm, which proves so destructive to the dahlia, the tiger lilly, and some other flowers. I suppose it is the same worm that destroys them here in Michigan that destroys them in other places. It is a white worm, specked with little black dots. The largest that I ever saw was about an inch long. Now I will tell you how I manage them. When I find a stalk with them,)which may be known by the chips that they throw out at a hole in the stock,) I take my camphor bottle and a teaspoon, and station myself before their citadel, bend the stalk over a little, and drop one or two drops of the camphor into the hole in the stalk, and then watch the result. Pretty soon the little rebel will put his head out at the hole, and looking round seem to say, what is going on here? Then is your time to grab him or he will draw back into his fortress again, and you will have to give him a second dose, when he will show himself again and you can take him easily captive. The camphor will not injure the plant at all.

Renewing Old Orchards.

It is remarkable how old orchards may be renovated. We have had full experience in this matter. Trees that are considered only cumberers; that bear an inferior fruit; dead in part and moss begrimmed: such trees we have often (and always when we attempted it) clothed with youth. This is more gratifying than to see a young thrifty tree. It is age renewed—what we all so much crave. What a world it would be if old men could be made young again. It is this very thought that touches us in seeing it in a tree. The old limbs (the poorest first) must be lopped off: not all in one year. The prunning must be extended through several years; for the shock is too great if done at once. Most of the branches, sometimes all, will have to be taken down before the tree is renewed. The change will be seen the first year. There will be new, thrifty shoots formed; the leaves will be thick and large, so that the fruit will be almost hidden; large as we have known it to grow under such circumstances. Sometimes, in addition, draining is necessary. Wettish soil will kill the roots; and this will bring on "old age." In all cases should fruit trees be in dry soil. The long, penetrating roots will find moisture enough, even in a drouth. Attend to the roots; and down with the old limbs; and new verdure will take their place. Cover the wounded parts with salve, or some kind of wash or paint. A handy thing, and thoroughly effectual, is a paint made of rosin and tallow, equal parts, applied when warm. Then your trees will be as good as new. The new branches will be clean and healthy.

The Premiums on Fruits.

To meet the views of the officers of the Fruit-Growers' Association, and the better to accomplish the ends in view, some few modificiations, not materially affecting the aggregate of premiums, have been made in classes 29, 30 and 34, of the list published in the last No. of the FARMER. These and all other needed corrections will be made in the official pamphlet edition of the premium list, copies of which may be had on application to us at this office, or by mail, as heretofore stated.

The corrections will also be published in full in an early No. of this journal.

Notes and Replies.

The excessive drouth prevailing in most parts of this State, will not be without its valuable lessons to the fruit-growers as well as the farmers.

The contrast in the appearance of those orchards which are well cultivated, with the feeble, half starved, sod bound trees, would seem enough to convince any and all men of the importance of giving the orchard the benefit of the soil where it can send its roots as feeders.

Is it not poor economy to draw the last drop of moisture from the support of the fruit tree, for the sake of a few pounds of hay?

Then *summer fallow the orchard ground.* If during the dry term, all the better. There is no necessity of bruising the tree or branches; better leave the square inside the drip of the tops in gross, than the area outside. Still I would commend friend Rar's mode of mulching, (page 108) both in theory and in practice.

However plausible the theory of Mr. R. (page 225,) practice will hardly sustain it.

There are three seasons of severe trial in strawberry culture, namely, the different periods of planting, fruiting and wintering. If we can, by choosing the invariably moist season, plant successfully, then we may easily provide for the remaining trials, by timely mulching. Experience will be found a good teacher on this point.

Who has grown the cranberry vine sucessfully on upland in Wisconsin? Repeated experiments convinced me of its impracticability, but I have seen them doing passibly well on a loamy sand, only two feet above water level

Mr. D. (page 227) gave us a list of favorite apples, "left out."

The Hurlburt is quite promising, but not well tested. Cranberry will be very valuable as an amateur. As to the Roxburry Russet, Baldwin and Belmont, I will only say, they are better to eat than to grow in the northwest. If Mr. D. has them *genuine*, would like his report on them again.

Your "experienced orchardist" of "unwavering faith" gave us a very brief but refreshing report in the April No. and we expected to see ere this a list of those "few sorts."

We certainly expected another hard winter, would strengthen the last weak point of that faith; but your next issue brings the doleful tone of discouragement, as if he were on the verge of the limit of Pomona's Kingdom.

I am looking in vain for this limit, within the five hundred miles of hill and valley to the north-west, and been thinking of the Baraboo bluffs as one of the favored spots in this lucious kingdom.

If "A. G. T." had read crefully the November No. of '63, he would have then seen that his favorite Fameuse stood No. 6 in my "extra hardy list, and in the January No. I refer in the plainest terms to the same variety as being in said list, and recommended for *geneal planting*.

The surmise that I did not recommend it because I did not have it *to sell*, in view of the above facts, is simply absurd, as they are numbered by the thousand in my choice collection.

Did I recommend Bartlet pears for general cultivation when I said, "for very dry soil and limited cultivation, trained low, with winter protection from the sun."

Now does not the sequel prove that my theory is strictly true, and if true, why not be a favorite.

I sincerely hope that A. G. T. will favor the readers of the FARMER with the expected favorite list. J. C. PLUMB.

LAKE SIDE NURSERIES, MADISON, WIS.

The Weigelia.

Hardy flowering shrubs, attaining the height of two to four feet, and producing a profusion of neat, pretty and very showy flowers in June.

W. rosea—is a favorite with all who know it; of neat habit, fine foliage, and literally covered with rose colored flowers. Should be in every collection of shrubs, however small.

W. amabilis—has larger foliage than preceding, and the habit of blooming again in the autumn.

W. alba—flowers very large; pure white, new and quite scarce yet,

W. groenewegenii—This is also a new variety in bloom on our grounds now for the the first time, and is the admiration of all who see it. Habits of W. rosea; flowers reddish, violet changing to deep red; a most profuse bloomer, showy and fine, like W. arnabilis; it also blooms again in the amtumn.

W. desboises—has deep rose colored flowers, fading to white, having the appearance of two distinct flowers on the same cluster, a great bloomer, new.

W. variegata nana—beautiful variegated foliage, and dwarf habit.

All the weigelias will need slight protection to bloom well in Wisconsin.

A. G. HANFORD.

COLUMBUS, O., June 4. '64,

The Bark Louse.

MR. EDITOR—Please find enclosed a few remarks on the Bark Louse. I also send a sample of the effect of whale oil soap and water on the louse after it is partly grown. The tree from which the section of the limb sent was taken stands in my garden—is about five years old and of thrifty growth. About the middle of July last, or perhaps as late as the 25th, the soap and water was applied. The lice had the same shape and size as you now see them. The application seems to have killed every one of them. They had, however, done considerable mischief; the extent of which you will readily perceive by cutting off the bark. The full grown scales are of the previous year's growth. This limb I send in a different package. Please send me the FARMER. I do not know the subscription price, but will remit as soon as I ascertain.

Spring is come again with its, as usual for many years past, great numbers of large boxes and bundles of apple trees from eastern nurseries making their appearance at this port to gratify the eyes of our enterprising farmers. They pay their hard earned money for the trees, plant them out with great care, nurse them year after year, are pleased with their rapid growth with visions of fine orchards loaded with precious fruit, loom up in the future. But, judging from the past, nothing but disappointment and vexation is in the future for him, and what I say of our city can be said of almost every other city and neighborhood in the state. In view of the vast amount of money sent out of the state every year for apple trees, to say nothing of the attending, labor lost and disappointment that follows, I am constrained to send you a few remarks in regard to our failure in raising apples. And although I may be repeating what has been said and written many times, yet, the importance of the subject at this particular season is perhaps a sufficient excuse for referring to it again.

From my own observation for many years, I do not believe that one apple tree in fifty in Wisconsin has paid for itself. In this vicinity many trees have been planted, some of them twenty years ago; they all grew rapidly and many got to be fine large bearing trees—bore a fine crop of beautiful apples, then became sickly looking, stunted, grew worse from year to year and finally died; so that to-day scarcely one of those first planted out are alive, and I have noticed in various parts of the state about the same results, and am thoroughly convinced that it is both money and labor lost to plant apple trees in this region, and give them the same usage of the past; and all this is in consequence of the ravages of the bark louse; otherwise Wisconsin would be one of the finest apple growing states in the union, for its climate and soil are admirably adapted to their growth.

And yet this insect can be most easily and effectually destroyed if attacked at the proper time and with suitable weapons. Various remidies have been proposed, some good and many worse than good for nothing.

To select and apply a remedy for their destruction, some knowledge of their habits and nature is necessary, and, although, a minute and true description of this "Aspidatus conchifarinis" or muscle shaped coecus has frequently been published it may not be amiss to again notice a few peculiarities. This insect at this season of the year consists of a hard tough shell, glued fast to the bark of the tree, under which is safely protected a nest of about fifty eggs. With the point of a penknife, carefully lift up one of these shells or scales, and the little eggs, like fine grains of white sand, can easily be seen. These, when seen through a magnifying glass, are white and well formed. sometime in the month of June, according to the season, their eggs hatch out and the insect of nearly the same size and appearance of the eggs emerge from under their covering and creep in myriads all over the tree. After a short time they select a location, fasten themselves to the bark of the tree and then begin their ravages by piercing the bark and sucking the sap and life from the tree. They are soon enveloped in a covering of fine white down which gradually assumes the color and

texture of the outer bark of the tree, take the shell form and continue to grow until fall, when they arrive at maturity, lay their eggs under their bodies and die. The dead body being glued fast by its outer edge to the tree, becomes a hard tough shell, resembling very much the outer bark of the tree, and affording a remarkably safe protection for the eggs; and here ceases the ravages for the season, the extent and nature of which will be appreciated by taking a twig infested with the louse, and slicing off the bark down and into the wood which will be found very much discolored and injured.

And it is here among the little twigs and around the buds that nearly all the mischief is done. So long as the tree is very thrifty, and grows rapidly and the young twigs keep ahead of the louse, the tree will make a very fair appearance; owing to this many have concluded that the true policy was to feed the tree and make it thrifty, and the louse would leave; but this is a mistake, for the tree may grow and look finely, but as soon as it begins to bear, the growth is checked and the lice will then swarm to the very ends of the limbs, and in a short time they will interfere with the perfecting of the foliage, and the story is soon told, for the tree is doomed. With this view that the damage is mainly done among the limbs and twigs of the tree, we can readily see that remedies applied *only* to the body and large limbs will fail to accomplish the object. Hence, whitewashing, smearing with various kinds of oils, applications of tar, coal tar, different kinds of varnish, compounds of soap, sulphur and vomica, tobacco juice, etc., washing with strong lye, whale oil soap, and many other things that have been so often recommended and used, will at last, some of them, make that portion of the tree reached look healthy only, and so far as it goes would be beneficial.

But who would think of pulling the body and limbs only of a drowning person out of the water and leaving the mouth and head still immersed?—Now the leaves are the breathing aparatus of the tree, and it cannot live without them, and if the insect destroys the little twigs the leaves must also perish, and with them must perish the whole tree. And even if the remedy be applied to every part of the tree, unless done when the insect is quite young, no good results would follow without the application is nearly strong enough to kill the tree, for the shell that is protecting the eggs is nearly as hard to destroy as the buds and bark of the tender twigs. It is proposed to insert mercury under the bark of the tree, believing that it will diffuse itself all through the tree and thus kill the insect. This looks very doubtful. Others that fully appreciate the proper time to attack the louse, have proposed to cover the tree with canvas, and fumigate them soon after hatching with tobacco, sulphur, etc. This, no doubt, would be effectual if thoroughly done, but the difficulties and trouble of so doing it, would probably prevent its being carried into effect. It has also been recommended to sift ashes over the tree immediately after a shower, or when the tree is wet with dew; but it does not always rain at the particular time that the remedy should be applied,—besides the ashes are liable to accumulate on the upper sides of the leaves and limbs, and there make a stronger effect than you desire, while other localities are not effected at all. The lye of the ashes is all that can do any good, and it is more philiosophical to leach the ashes and syringe the tree with the lye; and this simple, cheap and easily applied remedy I believe is one of the very best, and I know it to be effectual, and if thoroughly applied at the proper time destroy every one.

The louse for some time after hatching is very easily destroyed, a great variety of applications will kill them, even water heated as hot as the tree will bear without injury will destroy them. But alkalis, such as potash, soda and soap are perfectly reliable and are easily obtained. Soap is perhaps preferable on some accounts, as a solution of soda or potash will dry on the tree quicker than soap and will leave behind a dry powder, which is easily removed and its further effects thereby lost, while soap is adhesive and will moisten with every dew.

I have used whale oil soap, one pound dissolved in five gallons boiling water, using a common garden syringe, which can be made of tin, zink, or copper, say two or two and one-half feet long and two or two and one-half inches in diameter, one end closed square across, through which small holes are punched from inside outwards for the jets, and in the center make a large hole to facilitate the filling, using a marble for a valve, which can be secured in its place by two small bands crossing at right angles. The plunger may be a straight stick with a piece of sponge say three and one-half inches wide and firmly tied around the end for packing.

In regard to the proper time to use the remedy good judgment is necessary; if used before they are *all* hatched enough may be left to cover the tree and then the labor is lost—if every scale would average fifty eggs, and we should succeed in killing forty-eight of the fifty, there would yet be enough to double the number already on the tree, and this number would in all probability do great damage, and perhaps make you believe that the remedy was good for nothing. It is necessary to know the newly hatched insect at sight, and if your eyes are not sharp get a small magnifying glass to assist them; examine them from time to time and note when they begin to hatch, and also when they first begin to locate, and they should not be allowed to become so old as to defy the effects of the remedy. The covering containing eggs should also be carefully examined from time to time, and as soon as hatching has ceased commence vigorously the work of their destruction. With a properly made syringe, the largest tree can be thoroughly syringed in twenty minutes, and if the application be of the proper strength it will destroy every bark louse on it. To make sure work syringe several times.

Our people are so thorougly imbued with the idea that all that is necessary to make an orchard is to select a good piece of ground and plant the trees, that it is a great effort to do anything more. But in this state particularly it is just as necessary to watch with care and destroy this insect in order to raise apples, as it is to hoe corn and destroy the weeds in order to make a crop of corn. And an orchard will succeed no better without this attention than will a field of corn left to take care of itself. It has been suggested that as this insect has its enemies, some day it will disappear, but it will not do to trust this theory, even though it should prove true, for that day may be far off.

J. J. Brown.

Sheboygan, May 26th, 1864.

The Watering of Plants and Trees.

In times of drouth, like the present, persons not accustomed to the care of plants and newly planted trees, are often in a quandery as to whether to water them, and if so, who and when to do it. A word on this subject:

As a general rule trees and shrubbery, planted as they ought to be, in well drained and carefully prepared soil, and then thoroughly watered and mulched, will pass unharmed through the severest drouths without further care. But if, as often happens, proper care was not used in the planting, it may be necessary to employ watering as a means to keep them alive.

In such cases it is well to apply a sufficient quantity to thoroughly moisten the roots, and then water again when the soil again begins to become dry. Every two or three days will usually be often enough.

As to time when, we would emphatically say in the evening, after sun down.

It involves a good deal of labor, this watering properly, but what is worth doing at all is worth doing well, and fruit-trees which will continue to bless the owner with lucious fruit, are certainly worth much care and labor.

An Excellent Work on Grape Culture.

We have just received from the author, Andrew S. Fuller, practical horiculturist, Brooklyn, N. Y., a copy of his recently published book entitled "The Grape Culturist: A treatise on the cultivation of the Grape."

After a careful examination we are prepared to say, we like it very much. It takes up the different subjects a discussion of which

is necessary to a knowledge of the best methods of growing by seed, propogating by single buds, and by cutting, of laying, grafting, hybridizing and crossing, transplanting, prunning, training, &c., &c., and deals with them in so plain, practical and simple a manner as to render the whole matter intelligible to the most inexperienced.

The book is cheap at $1.00, and should be in the hands of every one who attempts the cultivation of that most delicious and wholesome of all the small fruits—the grape.

A Fine Hardy Raspberry.

We have been cultivating a Raspberry for some years past, which we found in the hands of a horticultural friend in Racine county, Wisconsin, who has had it ten or twelve years. Its name and history is not fully known to us yet. It is evidently a foreign sort, or at least of foreign parentage; is nearly or quite as the North river Antwerp, which it resembles in form and firmness; is of excellent flavor and very productive, and best of all, is entirely hardy, being the first of that class we have yet met with that has proven so in Wisconsin. We have fruited it both in Wisconsin and here in Columbus, and it grows in favor with us every year. We hope to be able to give more of its history after the fruit is ripe this season.

COLUMBUS, O. A. G. H.

MECHANICAL AND COMMERCIAL.

A Bog-Cutter that Works Admirably.

To the farmers of Wisconsin, which State abounds in boggy meadows, susceptible of being made very valuable if the hummocks can only be smoothed down so as to admit of their being mown, any machine, capable of converting such marshes into true meadows, is certainly a great desideratum.

Well it appears to us that the right implement has at last turned up. We refer to the bog-cutter recently patented and manufactured by Mr. C. E. Steller, of McGregor, Iowa. This gentleman recently exhibited his cutter at our request, in operation at this place, and in company with Gen. Atwood, Treasurer of the State Agricultural Society, and several other gentlemen, we had the pleasure of seeing it work upon ground previously selected by us in this immediate vicinity.

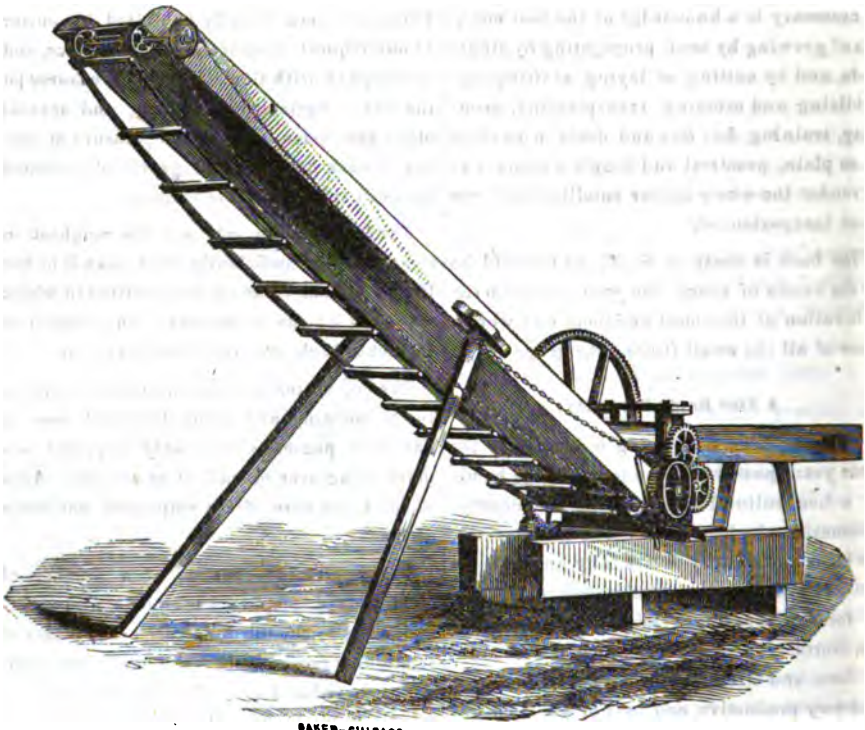
The land chosen was not the roughest in the world, but sufficiently so to make it of but little practical value in the condition in which we found it; the hummocks being from 6 to 15 inches high, and very close together.

The bog-cutter was put on at about 8 o'clock in the morning, and about 11 o'clock was as flat as a pan-cake, and only required one more going over to make it as smooth. Area of land, one acre; force employed, one span of horses.

The implement consists of a number of steel knives, sloping backwards and so arranged as to cut the hummocks into pieces of triangular form which, when again cut crosswise, are reduced to small bits, suggestive of mince meat. At a distance the cutter has the anpearance of an ordinary harrow, and is about as broad and heavy.

In view of the effectiveness of this implement; of the increase in value of the land for crops of tame grass; of the vast amount of labor it will save by enabling the farmer to harvest such crops with a mower, and finally of its applicability to other uses, as for instance the thorough preparation of lands recently broken by the plow, we feel it our duty, as it is entirely our pleasure, to thus bring it to the attention of the public.

It may be suggested that from the character of the implement, it is important that the bog to be smoothed should be free from large roots and stones, and that the work should be done before the grass gets so long as to clog. During this drouth the worst bogs must be dry enough to allow horses upon them, and we doubt not that hundreds of our farmers will be pleased to read Mr. Steller's advertisement, and to test this valuable instrument



A Cane Mill with Bagasse Carrier.

The above cut illustrates the Sugar Cane Mill manufactured at the Rock River Iron Works, Janesville.

Messrs. Harris & Co., the proprietors, are manufacturing various sized mills adapted to horse, steam or water power, and we are glad to learn are doing a large business.

So far as we know, their mills and other sorghum apparatus give entire satisfaction. Ses advertisement.

Cottonized Flax.

During the past year a series of experiments, mechanical and chemical combined, have been made in Rhode Island, the object of which was to provide, as a substitute for cotton, a material that could be manufactured without any alteration of machinery now in use. The object has been attained by the production of a material which is properly named cottonized flax. The flax is pulled in the field by a machine which does the work for fifty men. Either matured flax or flax not in seed may be used. As flax is cultivated for the seed, a double crop may thus be produced—a crop of seed as well as of flax. The dried flax, as gathered from the field, is first cut by machinery into suitable lengths, representing the staple of upland cotton, about one and one-eighth inches long. This process is performed by automaton machinery with great facility, and at little cost. The material is subjected to a steaming process in large vats, and then is dried by machinery rapidly revolving. Next, it passes through what may be called a ginning process, whereby the woody husk or chives is separated from the fibre. By chemical process the fibre is then exploded longitudinally, and assumes the required fineness of cotton. The whole process is rapid, simple and cheap. In this form the material is successfully carded, spun and woven. Beautiful specimens of flax cotton, drawings, rovings, yarn and cloth, and also of flax mixed with cotton, have been exhibited to the Secretary of the Interior, and others, by Ex-Gov. Jackson, of Rhode Island. As a material for mixture with wool, the cottonized flax is vastly preferable to cotton. It combines in the carding process with greater facility. The yarn is stronger. The cloth is very durable, even more so than if made wholly of wool. The lustre of the cloth is improved. Flax wool also receives a dye with the same facility as wool itself.—*National Intelligencer.*

Ice-Making Machines in Demand.

The Philadelphia *Press* has the following in relation to this subject:

"If, in the face of the abundance of ice, the prices be kept up—few, we suppose, will have the impudence to think of raising them—science must be resorted to to produce the article artificially. It can be manufactured now, with the aid of steam power, by evaporating ether or any other similarly volatile liquid *in vacuo*, and again condensing the vapor to liquid, so as to be used afresh. By such a machine, 20 deg. Fah. below zero, (52 of cold) can easily be obtained. Now, as water in ordinary cases freezes at the degree of heat marked 32 on Fahrenheit's thermometer, the machine readily produces ice. By its means ice is made nearly under the equator, in Peru, where previously ice had never been seen, and the British Government employs these machines in India and the Cape of Good Hope, for the use of troops in the hospitals. At Calcutta, the machine-made ice is driving the imported Boston ice out of the market, and seriously threatens the extinction of the large and profitable ice importation from America, established by Mr. I. Tudor, of Boston, over thirty years ago. In large cities, such ice making machines (producing over ten tuns a day, with ease,) might be worked by companies, or even by private persons, at a profit, with prices what they have been of late years.

What is needed, however, is an apparatus, at once low-priced, simple, speedy and effective, which may be used in every house. The French firm of Carrie & Co. showed such a machine in the London Exhibition of 1862. It produced ice of such perfect purity that pieces of it could be put into the drink that is to be cooled—solid, transparent ice, without any sponginess. As the volatile liquid is only the aqueous solution of ammonia, the cost of making it is very slight. The machine is sold in London as low as $20 each, for the smallest machine, and it was estimate- that it might be supplied on lower terms, if manufactured largely. The scot of ice thus produced was far below what we paid, in this city, last year. We only wonder that in this country, where the price of ice has lately gone up so greatly, some ingenious inventor has not discovered a cheap and effective process, for use in all ordinary dwelling-houses, by means of which every family might be self-supplied with ice, at reasonable rate. If prices keep up, after the large natural supply of ice this winter, we shall probably have the French machine introduced here, of course with improvements. If ice continues dearer than bread, every house will have its own ice-making apparatus."

The Conscience of Capital.

It has often been said that capital has no conscience—that gain, irrespective of either means or ultimate end, is its god. In an important sense this is true—so true that the Capitalist is scarcely thought of, except as the incarnation of selfishness, cold, keen, shrewd and soulless. There are noble exceptions—now and then instances of the sublime consecration of money to patriotic and philanthropic ends—but they are so occasional as to make them all the more emphatic in proof of the rule.

We would not be extreme, and deny to capital all schemes that do not involve self-sacrifice and heroic devotion to the great interests of man; for a statute of limitations like that would so repress the energies of men, as that all accumulations would necessarily be accidental and very exceptional. What we do insist upon is that capital should despise all extortion and meanness, and not so generally as it does lose sight altogether of the rights and interests of Labor. These two should be on terms of generous friendship, not of hostility.

One of the most reprehensible manifestations of this characteristic spirit of Capital, is that of a combination of capitalists in order to secure to themselves the advantages of a monopoly, the basest feature of which is, that it is usually practiced under circumstances which make its effects most grievous to be borne.

Laborers' "strikes" are of the same class of proceedings; but these have the virtue of a sort of necessity, while the "combinations" of bankers, brokers, merchants and of extensive manufacturers, are for the sake of rapid and needless accumulations.

It is a principle of political economy that price should be regulated by the natural law of supply and demand—that no civil statute should, except in extreme cases, be applied to the regulation of commercial affairs. And this principle is thoroughly sound as to its applicability to those transactions which are influenced by the action of any restraining or compelling force. But does it not often happen

that combinations of dealers and manufacturers conspire to make an *appearance* of scarcity, where there is really a comparative abundance, with a view to large and extravagant profits? Such has been especially true of the stock-brokers and bankers of the great business centers since the beginning of the present national troubles, and it strangely continues to be as true as ever of several classes of merchants and manufacturers. But, by whatever class, and at whatever time, they are base frauds upon the consumer, and merit the reward of defeat and ruin.

A Sleigh Brake.

I see in the April No. of the FARMER an inqiry for a cheap, convenient and effectual brake for sleighs. Make a clevis of ¾ inch square bar of iron, wide enough for the thickness of a runner. The lower end should be made square and faced with steel, and long enough to draw on an angle of forty-five degrees. ZET. MERRELL,

NEOSHO, WIS.

SCIENCE, ART, STATISTICS.

Drying Flour.

In the market columns of a Liverpool paper, American *sour* flour forms one of the items, and is always quoted at a low price compared with good flour. It consists of flour that has been damaged by exposure to water, or which has become heated by an excess of moisture contained in it. Such flour is used for making starch, also the sizing that is employed for dressing cotton warps. Much of this flour is damaged by water, when being carried on our lakes, canals, and rivers, and with more care this might be prevented. But the carrier is not to blame for the flour which becomes damaged by internal heating from containing too much moisture, when it is stowed in the hold of his vessel, as the same results will follow when it is kept in quantity in a store. But all this damage to flour may be prevented by drying it before packing in barrels, and the operation should not entail much extra expense when properly conducted. In France, where large quantities of flour are stored by wealthy bakers, much attention has been devoted to this subject, and drying machines are now employed for expelling the moisture from flour before it is stored up. The summer of 1860 was very damp in France, and much of the stored flour became heated, and was attacked with mildew. All the flour so affected lost much of its nutritive qualities, and yielded less bread according the government standard. To obviate such a great evil, flour-drying machines have been introduced. The most successful resembles a long, vertical cylinder, in the interior of which is a spiral plate extending from top to bottom, revolving on a spindle. The plae is heated by steam pipes. The flour to be dried is received by a spout at the top, and is carried down on the warm spiral plate, when it is stirred by brushes to expose it uniformly to the heat. The moisture which escapes is carried off by a funnel, and the flour is discharged at the bottom, in a dry room, in the lower story of a mill, and is cooled before it is packed. It has been found that waterproof bags are the best article in which to pack it for long-continued storage. Of course, flour which is designed for use soon after it is made does not require to be thus treated, and as the climate in the interior of America is drier than that of France, our flour contains less moisture and is not so liable to heat But allowing for this, it has too much moisture for lengthened preservation in store; and all that is designed for distant shipment, or for long storage, would be rendered more secure if submitted to such a drying process. It is well known that vegetables and most organic bodies will remain unchanged for a long time in a dry atmosphere, while they will decay rapidly when exposed to air and moisture. Kiln-dried meal and dessicated vegetables remain unchanged in places where they would, if moist, begin to deteriorate in a few days.—These facts should not be overlooked in the preparation of salt for shipment, as vast quantities of it are injured annually fo want of sufficient care being bestowed upon its preparation.

Production of White Wax.

The last number of *The Technologist*, a valable scientific journal published in London, contains a paper by the editor, P. L. Simmonds, Esq., on the trade in beeswax, from which we extract the following:

"There are two kinds of wax found in commerce—yellow or unbleached, and white, or purified and bleached. The bleaching of wax is affected by exposing it in thin laminæ to the action of the light and air, by which it becomes perfectly white, scentless, harder, and less greasy to the touch. To accomplish this, it is first broken into small pieces and melted in a copper cauldron, with water just sufficient to keep the wax from burning. The cauldron has a pipe at the bottom through

which the wax, when melted, is run off into a large tub filled with water, and covered with a thick cloth to preserve the heat till the impurities are settled. From this tub the clear melted wax flows into a vessel having the bottom full of small holes, through which it runs into streams upon a cylinder, kept constantly revolving over water, into which it occasionally dips. By this the wax is cooled, and at the same time drawn out into thin sheets, shreds or ribbons, by the continual rotation of the cylinder, which distributes them through the tub. The wax thus flatted, is exposed to the air on linen cloths, stretched on large frames, about a foot or two above the ground, in which situation it remains for several days and nights, exposed to the air and sun, being occasionally watered and turned; by this process the yellow color nearly disappears. In this half-bleached state it is heaped up in a solid mass, and remains for a month or six weeks, after which it is remelted, ribbonded and bleached as before—in some cases, several times—till it wholly loses it color and smell. It is then again melted for the last time, and cast with a ladle upon a table covered over with little round cavities, into the form of discs or cakes of about five inches in diameter. The moulds are first wetted with cold water, that the wax may be the more easily got out; and the cakes are laid out in the air for two days and two nights, to render them more transparent and dry.

Science and Art.

A regular meeting of the American Institute, held on Thursday evening, March 10, Dr. R. L. Stevens, Geologist, gave an interesting account of recent explorations made by him of the great iron deposits in the State of Missouri. He presented not only specimens of iron ore from that region, but from various other localities, and gave the per centage of iron in each.

Iron Mountain is 250 feet above the surrounding valley, and 1,206 feet above St. Louis. It covers an area of about 500 acres. It is nearly a pure specular iron ore, containing only a little silex. It is massive, without any signs of stratification. Upon its slopes, at its base, resposes a sandstone, and above the sandstone is a layer of limestone, containing fucoids, showing that the mountain has been upheaved since these lower Silurian deposits were laid down.

The Pilot Knob is a much higher mountain, its elevation being nearly 600 feet. It is composed of alternate strata of porphyry and specular ore. The mass of ore opened is nearly at the summit of the mountain; the quarry is 300 feet long, by about 50 feet deep, and is composed of two masses, separated from each other by a divisional band of slate, from two to three feet deep. The strata of this mountain dip south-west 30°. Upon its flanks reposes the same Silurian deposits as on the Iron Mountain.

The theory Dr. S. inclines to, is that of Bischoof, viz.: that specular ore is the metamorphosed condition of an iron deposit in some earlier age of the American Continent, and which was upheaved (not erupted nor ejected) after the Silurian period.

How to Use a Barometer,

Many private persons consult the barometer, and even set it daily, and are surprised to find that they cannot rely on its indications, especially on those of the unscientific wheel barometer, with a face like an underdone clock. The fault, however, is not with the instrument, but with those who use it improperly; "th' ap'aratus," as Salem Scudder observes, "can't lie." A few words on the practical use of the weather-glass may be found useful. It is an invaluable fact, and two often overlooked, that the state of the air does not show the present, but coming weather, and that the longer the interval between the barometric signs of change and the change itself, the longer and more strongly will the altered weather prevail; so, the more violent and impending storm, the longer warning does it give of its approach. Indications of an approaching change of weather are shown less by the height of the barometer than by its rising or falling. Thus, the barometer begins to rise considerably before the conclusion of a gale, and foretells an improvement in the weather, though the mercury may still stand low. Nevertheless, a steady height of more than thirty inches is mostly indicative of fine weather and moderate winds. Either steadiness or *gradual* rising of the mercury indicates settled weather, and continued steadiness with dryness foretells very fine weather, lasting some time. A *rapid* rise of barometer indicates unsettled weather a *gradual* fall of one hundredth of an inch per hour indicates a gradual change in the weather, and moderate rising of the wind; several successive falls, to the amount of one-tenth of an inch, indicates a storm *eventually*, but not a sudden one; and a gale if the fall continues. These storms are not dangerous, as they can be long foretold; but a sudden fall of one-tenth of an inch betokens the quick approach of a dangerous tempest. Alternate rising and sinking, (oscillation,) indicates unsettled and threatening weather. When the barometer rises considerably, much wind and rain will follow—from the northward, if the thermometer is low for the season; from the southward, if high. For observing barometric changes, the barometer should be placed at the eye-level, out of the reach of sunshine and of artificial heat, as of fires, and out of the way of gusts of wind. It should be set regularly

twice a day by a competent person. A card should be accessible close by, and on it should be registered the indication at each setting.—*Chambers' Journal.*

Chemistry and Physiology.

A correspondent of the Mark-Lane *Express* observes, that we act with our animals as if analyses alone should decide what they should have and what they should not have, to which he adds the remarks of an able physiologist, that—"To the chemist there may be little or no difference between plant or flesh as food; to the physiologist the difference is profound. He sees the lion perishing miserably of inanimation in presence of abundant herbage, which, to the elephant or buffalo, furnishes all that is required. The ox eats the grass, and the tiger eats the ox, but not the grass. The flesh of the ox may contain little that is not wholly derived from the grass. The chemist analyzing the flesh of both may point out their identity; but the physiological question is not, What are the chemical constituents of nutritive stances? it is, What are the substances which will nourish the organism? If the animal will not eat, or having eaten cannot assimilate a certain substance, that substance is not food for the animal, be its chemical composition what it may."

Preservation of Meat.

The Admiralty of Great Britain are now making experiments with the process of Dr. Morgan for the preservation of meat. It consists in forcing through the arteries, capillaries, and veins of the slaughtered animal, brine, which carries before it the blood, and both make their exit through an incision provided for that purpose. The brine tank is elevated about twenty feet, so as to give sufficient pressure to the fluid, which passes through a tube into the chest of the animal. Another tank at the same height contains a mixture consisting of 6½ gallons of brine, 10 lbs. of sugar, and ¾ of a pound of saltpetre, with an infusion of cloves and pepper. After the first or cleansing operation, requiring about six gallons of brine, the fluid from the second tank is forced through the same passages. The exit being closed, every part of of the body is thus traversed by the fluid.—The whole process of cleaning and infiltration does not occupy more than twenty minutes. The animal is soon after skinned, and cut in pieces, which are thoroughly dried and packed in sawdust and charcoal. It is said meat treated in this manner will stand any climate, and that more of its nutritive qualities are preserved than by the ordinary process of curing.

The Great West.

The four States of Indiana, Illinois, Iowa and Wisconsin, have a computed area of 124,000,000 acres, or a surface of about one-half greater than the whole British-Isles. From 1850 to 1860 the area under cultivation rose from 11,956,269 acres to 25,949,886 acres—an increase of 142 per cent. At the same time the value of the farms advanced from $278,704,593 to $1,027,292,838; and the value of the farming implements rose from $15,924,442 to $39,645,875.

The population of these four States was 2,387, 491 in 1850, and 4,513,208 in 1860.

The aggregate live stock of the four States was:

	1850.	1860.
Cattle of all classes,	1,946,755	3,724,726
Sheep	2,291,392	3,533,837
Swine,	4,560,196	6,033,366
Horses and Mules,	668,739	1,349,054

In other words swine increased in numbers 29 per cent., sheep 54, cattle 90, and horses 100 per cent.

The immense grain crops of these four States increased as follows:

	Crop of 1849.	Crop of 1859.	Est. for 1862.
Wheat, bushels,	21,445,745	63,624,450	83,812,946
Rye, do	263,325	2,446,137	2,603,534
Barley, do	391,063	2,605,133	2,971,680
Indian corn do	119,257,125	238,629,654	290,639,025
Oats, do	20,681,272	37,803,750	43,217,662

Such are the kind of products which constitute the foundation of our nation's material power.

Lost Arts.

While we boast of superior knowledge, and assume to ourselves the position of being wiser in various species of improvement, and especially in the mechanical arts, it would be well to keep the truth on our side, and learn that there are some singular exceptions to this fact. In regard to colors, we are far behind the ancients. None of the colors in the Egyptian painting of thousands of years ago, are in the least faded, except the green. The Tyrian purple of the entombed city of Pompeii is as fresh to-day as it was three thousand years ago. Some of the stucco painted centuries before the christian era, broken up and mixed, revealed its original lustre. And yet we pitty the ignorance of the dark skinned children of ancient Egypt. The color upon the walls of Noro's festical vaults are as fresh as if painted yesterday. So is the Egyptian prince who was cotemporaneous with Solomon and Cleopatra, at whose feet Cæsar laid the riches of his empire. And in regard to metals, the edges of the stones of the obelisks of Egypt and of the ancient walls of Rome, are as if hewn but yesterday. And the stones still remain so closely fitted that their seams laid with mortar cannot be penetrated with the end of a penknife. And their surface is excessively hard; so that when the French artists engraved two lines

upon an obelisk brought from Egypt, they destroyed in the tedious task many sets of the best tools which could be manufactured. And yet these monuments are traced all over with inscriptions placed upon them in olden time. This, with other facts of a striking character, proved that they were far more skilled in metals than we. Quite recently it was reported that when an American vessel was on the shores of Africa, a son of that benighted region, made from an iron hoop a knife superior to any on board the vessel, and another a sword, of Damascus excellence, from a piece of iron. Fiction is very old. Scott had his counterpart two thousand years ago. A story is told of a warrior who had no time to wait for the proper forging of his weapon, but, seizing it red hot, rode forward, and found to his surprise that the cold air had tempered his iron an excellent steel weapon. The tempering of steel, therefore, which was new to us a century since, was old two thousand years ago. Ventilation is deemed a very modern art. But this is not the fact, for apertures unquestionably made for the purpose of ventilation are found in the pyramid tombs of Egypt. Yes, thousands of years ago, the barbarous Pagans went so far as to ventilate their tombs, while we scarcely know how to ventilate our houses.—*Wool Grower.*

American Railroads.

The number of miles of railroad completed Jan. 1, 1864, in the twenty-four loyal states is 24,926, but the total number completed and in the course of construction 34,807 miles. The cost of their construction and equipment is $1,025,115,742. So far as relates to the condition of the railroads in the rebel States we have but little information, yet it cannot be doubted that they are in a bad state, both as regards the permanent way and rolling stock. From apparently reliable accounts obtained from prisoners who had been conveyed over some of these lines, the tracks and engines seem to have become so depreciated, that trains cannot be run in safety at a speed over six and seven miles per hour. This will get worse before they get better while the war lasts.

Last year was the most prosperous on record for our Northern railroads. They were all taxed to their utmost capacity in carrying freight and passengers, and most of our city merchants believe that we have not a sufficient number of main lines for the business of the country.

New Rat Poison.—The *Journal d'Agriculture Pratique*, recommends artificial carbonate of baryta to be mixed with various kinds of food for rats. This salt is almost tasteless, and it is said, does not become poisonous until after the action of the gastric juice renders the salc of baryta soluble.

What is Heat Lightning.

The flashes of lightning often observed on a summer evening, unaccompanied by thunder, and popularly known as "heat lightning," are merely the light from discharges of electricity from an ordinary thunder cloud, beneath the horizon of the observer reflected from clouds, or perhaps from the air itself, as in the case of twilight. Mr. Brooks, one of the directors of the telegraph line between Pittsburg and Philadelphia, informs us that, on one occassion, to satisfy himself on this point, he asked for information from a distant operater during the appearance of flashes of this kind in the distant horizon, and learned that they proceeded from a thunder storm then raging 50 miles eastward of his place of observation.—*Prof. Henry.*

NATURAL HISTORY.

The May Beetle.

This bug or beetle makes it appearance in May—sometimes the first of May. They are from half an inch to three quarters in length and half an inch wide, and vary in color from a light brown to a dark chestnut, with three spots on each side, of still darker color, nearly black. A small spot on each side of the head, making four spots on a side. The femhle is the largest. They are destructive to meadows and pastures, as well as the plum and cherry trees. The eggs are deposited in the ground in meadows and grass lands in June and July, not in raw ground or plowed land. The egg hatches a worm.

The first year they are not noticed by the majority of farmers, (unless very close observers, (but the second year still the same worm, growing from half to three quarters of an inch long, white body, with dark head, noticed by gardener's cultivating strawberrries, and farmers plowing up grass or meadow grounds. The third and last year in worm state, they are an inch in length, sometimes an inch and a half long, observed by most every farmer, and boys frequently catch them for fishing; call them the white grub. In October of this third year spoken of, they form a cavity or cell by turning around and around, pressing up the dirt and moulding it into a cell; find them when fall plowing. In this cell they change into the pupa and

chrysalis state, remaining in that state till the next May, making its appearance again the same as three years before, a beetle or a bug. The remedies are many.

The way to destroy them is, by not letting your ground lay in grass over three years; plowing often destroys them in the egg, also in the chrysalis state. And while in the bug state they can be caught by shaking them off the trees into blankets, and putting them into pails and pouring hot water on them, then feeding them to poultry. The better way to destroy them in the bug state is to make a reflector of tin by taking two sheets, placing the ends together in the form of a letter A, thus, the cross-piece in the centre, the place for a light or lamp or lantern; this reflector with its light to be placed upon a pail or tub with soap suds in it. As the bugs or insects are flying to this light, they strike this tin and are thrown into the suds. They can be fed to poultry, paying with a profit.

Another very good remedy is the toad, that will catch a great many insects through the course of the night, as they move around through yards and gardens—far superior to the skunk that some writers speak of, as my own practical observation assures me that the skunk will do more damage by destroying eggs, turkeys and chickens in one night, than they could do good destroying bugs the whole year; whereas, the toads feed only on insects, and do no harm.

M. G. Almy.

Seneca Co., N. Y.

EDUCATIONAL.

Educational Interests of Iowa—Present and Prospective.

Hon. H. A. Wiltse, who has recently been appointed Secretary of the State Board of Education, after defining his position in the Iowa *Instructor*, says:

"Iowa has now one thousand one hundred and six organized school districts, and five thousand and fifty-five organized sub-districts, in which the school children of the State, now numbering more than two hundred and fifty thousand, are being educated. As a State, it may be said that Iowa is just taking her National position. Her fifty thousand soldiers in the field, and her eight members in the next Congress, will attract the attention of the Nation to her, and go far in determining the position she is to occupy in the Sisterhood of the States. But her facilities for educating her youth, for giving them a knowledge of those things which they will have to practice when they become men, will have quite as much to do with her reputation abroad, as will either the gallantry of her soldiery, or the ability and efficiency of her delegation in Congress. At home, her essential progress is to be measured almost exclusively by the education which she imparts to her youth. At the next decade, if our schools come up to the necessities of our State, we will have at least sixteen members of Congress, and, of necessity, a powerful voice in the councils of the Nation. Then the children for whose education we are either now providing or failing to provide, will have a large share in the control of all the essential interests of the State. If we come up to our duty in this respect, but in moderate proportion to the means which our abundant territory, fertile soil and the finest of climates, place within easy reach, we shall have a great State in the true sense of the term. If, on the contrary, we neglect this duty, we shall have misdirected labor; another term for feebleness in manufacture, a languishing commerce, and unremunerating agriculture; and an absence of that morality and refinement which are the sure index to, and crowning ornaments of a christian State."

This talk has the ring of a man who sees in the future with the clear eye of a statesman. No state or nation can so safely invest its means and its energies as in the true education of its people.

Would that they who direct the affairs of state in Wisconsin had a more realizing sense of the vast importance of education as a perquisite to real progress and greatness. No state or nation can possibly make so safe and profitable an investment as in the education of its people.

MISCELLANEOUS.

Trouting.

Where in many a straggling group,
  Gnarled and crooked willows
By a shaling streamlet stoop,
And their yellow branches droop
  Toward its tiny billows;
Near the banks are little whirls,
  Wh'rls of fretted water,
And—beneath these rings of pearls—
  Trout delicious caught are!

Cannot must not name the where—
  That to self were treason;
Would not whisper it to the air—
'Tis a secret none must share
  In the trouting season;
But, by Isaac Walton's bones!
  'Tis a spot delicious—
Drift-wood, stumps, foam-crested stones—
  Everything auspicious.

Though the season's scarce begun,
  Trout are there, I warrant;
Tickeled by the April sun,
Playing hide and seek, they run
  Up and down the torrent.
Meanwhile, for those gleesome trout,
  Mischief is preparing;
From that stream they must come out
  Just to take an airing.

Taper rods, and tackle light,
  Flies—few hands can match them.
Worms in moss so red and bright,
E'en a finny anchorite
  Would leap high to catch them,
Trout baskets and landing-nets,
  Light hand, true and steady—
All that confidence begets,
  On my life, is ready.

Pretty sport to strike a trout,
  Brilliant sport to play him,
Happiness to swing him out
(Twenty ounces, say about!)
  Glorious to display him.
Heavens! how beautiful he looks!
  Naught that water swims in
Mates this monarch of the brooks,
  Dressed in pearl and crimson.

In the spring-time of the year,
  When the streamlet, brawling,
Dashes on, as winged with fear—
There unchafed by rocks, and here
  In white cataracts falling—
Oft I wander by its side,
  Listening to its wrangle,
As a calm at highest,
  Happy, while I angle!

To Prevent Accidental Drowning.—Any person who will have the presence of mind to clasp the hands behind the back, and turn the face toward the zenith, may float at ease and in perfect safety in tolerably still water—aye, sleep there, no matter how long. If, not knowing how to swim, you would escape drowning when you find yourself in deep water, you have only to consider yourself an empty pitcher—let your mouth and nose, not the top of your heavy head, be the lighest part of you, and you are safe. But thrust up one of your bony hands, and down you go; turning up the

Nature has no idle dust at all. She finds the dead where we have laid them, and transfigures the crumbling forms into shapes of life and and beauty.

The grave by whose subsided swell we mourn, may be without a tenant, for the tree that bends above us, that the wind and summer woo, may have use for the empty chrysalis; and the bird rustled out of its green depths of shade, with a song, may bear away upon its wing, gleams and glimmers of beauty we fancy dead.

Who shall say the blue violets that sprinkle the field of Inkerman, did not catch their tent from the many eyes that closed forever there? Who shall say, the leaves the rose-tree sheds upon the tomb, do not share the beauty of the cheek we used to press?—*B. F. Taylor.*

THE HOME.

Beautify your Homes.

As I sit at my window and gaze abroad, my eye meets nothing that may in any wise inspire me to admire the locality much less its scenery.

But this is owing, no doubt, to the sad reality, that many of our western farmers lack energy in endeavoring to procure that greatest of bessings, viz., a beautiful home.

How many there are who will spend hour after hour, day after day, year after year, I might say, in carefully attending to the wants of some pet animal, and at the same time neglect to spend one moment in beautifying that home in and through which they receive all their earthly happiness.

As we pass through the country our eyes are constantly being brought in contact with old rickety fences, straw covered sheds that have been broken down for years, hog pens almost buried in manure, and a dozen other sights too distressing for mortal eye to gaze upon.

Were this only to be seen in a few isolated cases, we might hope that the example given by those who know how to appreciate a beautiful home, might tend to reform the habits and ideas of those who are given to recklessness and enkindle in them a love for the beautiful.

simply appeal to conscience, and in the name of justice ask, is it right that man should first destroy the works of nature and then place in their stead a forlorn uninviting home?

Go then, farmer, and plant trees, straighten and repair your fences, tear down and rebuild those old sheds, and do evey thing which lies in your power to render your habitation a blessing to yourself and an ornament to your country.

Your family will never fail to aid you in this noble work, and they will ever rejoice to bring into fond recollection the pleasant scenes of their early childhood, and will ever commemorate that spot as their dear old home.

Then, when the blossoms of your earthly career shall have ripened into the sweet fruits of eternity, posterity will gaze upon the works of your industry, and behold in them, inscribed to your name, a memorial which nothing but the ultimate decay of centuries can obliterate.

TROY CENTER, June 14th, 1864. P. S.

Little Feet.

Up with the sun at morning,
  Away to the garden he hies,
To see if the sleepy blossoms
  Have begun to open their eyes.
Running a race with the wind,
  With a step as light and fleet,
Under my window I hear
  The patter of little feet.

This child is our "speaking picture,"
  A birdling that chatters and sings,
Sometimes a sleeping cherub—
  (Our other one has wings.)
His heart is a charmed casket,
  Full of all that's cunning and sweet,
And no harp-strings hold such music
  As follow his twinkling feet.

When the glory of sunset opens
  The highway by angels trod,
And seems to unbar the city
  Whose Builder and Maker is God,
Close to the crystal portal,
  I see by the gates of pearl,
The eyes of our other angel—
  A twin born little girl.

And I ask to be taught and directed
  To guide his footsteps aright,
So that I be accounted worthy
  To walk in sandals of light
And hear amid songs of welcome,
  From messengers trusty and fleet,
On the starry floor of heaven,
  The patter of little feet.

HEALTH AND DISEASE.

Dysentery

is literally a "difficulty among the intestines;" It is a discharge of blood from the bowels, accompanied by what has been aptly termed "an attrocious pain. You feel as if you would be relieved by an evacuation, but when the attempt is made, there is a fruitless straining termed *tenesmus*, and nothing comes of it, unless it be blood. The rectum, or last foot of the lower bowel, is the main seat of dysentery, which is commonly called "bloody flux." It should be always considered a dangerous disease. At first the discharges are colorless; but as the parts come more and more under the influence of the disease, they become disorganized, rotten and insufferably offensive. Dysentery most abounds in hot, dry weather, and is oftenest caused by bad air, a sudden check of perspiration, or by whatever makes the skin of the body cold. In fact, dysentery may be regarded as an exaggerated or aggravated diarrhœa—the latter is water, the former, blood. The great distinguishing features of dysentery are bloody passages, with frequent, fruitless and painful effort to stool. It is one of those diseases which is very apt to go on to a fatal termination, if let alone; a disease which is often made more speedily fatal by being ignorantly tampered with; and whether blood is passed from the bladder or the bowels, a skillful physician should be called in as promptly as possible, as promptly, indeed, as if it were an attack of cholera; but while he is coming, there are several things which may be safely done for the comfort of the sufferer, if not for his cure. The patient should not sit up a moment; should keep as quiet as possible; should eat absolutely nothing but boied rice or flour-porridge, and swallow bits of ice to the complete quenching. A little cold flaxseed tea may be swallowed from time to time. A favorite prescription of some of the old physicians of a past generation, and which is now said to be in vogue in Russia for several forms of diarrhœa and dysentery, is the use of raw meat—thus, take fresh beef, free from fat, scrape it into a pulp with a knife, season it with salt to make it more palatable, or with sugar for children, to whom begin with one teaspoonfull three timds a day gradually increasing the amount as they become fond of it. Adults may use it by spreading it between two slices of stale bread. Its merit consists in its being easily digested, very nutritious, of small bulk, and readily assimilated to the system. It is well known that children having the summer complaint, will ravenously eat, or rather chew or grind between their gums, a piece of the rind of bacon or ham, to which is attached half an inch of fat, and begin to improve in a few hours. The whites of forty eggs "whipped," and then sweetened with white sugar, and drank largely through the day, without

any other food, is an admirable remedy in these ailments. Or for dysentery or protracted diarrhœa, take half a teacup of vinegar, with as much salt as it will take up, leaving a little excess of salt at the bottom, add boiling water until the cup is two thirds full, remove the scum, let it cool, and take one table spoonful three times a day until relieved. It has not failed of cure in many hundred trials.

Summer Drinks.

If a man is really thirsty, there is nothing more delicious, nothing which is more gratefully and perfectly satisfying, than a glass of cool water, with the advantage of its costing nothing, and besides leads to no bad habits.—The men in glass manufactories, where the heat is fearful, drink water only, and that not iced, and remain healthy and vigorous. Field-hands on cotton and sugar plantations, find a wholesome drink in the mixture of molasses and water; this is a safe drink for harvesters; so also is "buttermilk," it being not only cooling and nutritious, but otherwise healthful as a liver stimulant.—*Dr. Hall.*

DOMESTIC ECONOMY.

Method of Preserving Fruit practiced by the Oneida Community.

1. The fruit, properly hulled, assorted, or prepared, is placed in clean glass bottles manufactured for the purpose, filling them to the neck.

2. Prepare a syrup of melted refined or white sugar, and pour into the bottles by the following rule, viz: Allow six ounces of sugar to one quart of fruit, or melt one pound of sugar in one half-pint of water, and give half-pint of the syrup thus produced to one quart bottle of fruit.

3. Place the bottles in a steaming box, or a boiler with a false bottom, which may be made of loose slats resting on supports so as to raise it, a little above the water in the boiler. Cover the boiler or steam box, and gradually raise a steam that will thoroughly heat the fruit and syrup in the bottles, bringing them to the boiling point. This may take an hour from the commencement of heating; but whatever the time, be sure that the whole contents of the bottles are at a boiling heat.

4. Have ready corks, steamed or moistened sufficiently to make them flexible. They should be large enough to fill the neck of the bottle tightly, and require some force to crowd them in. One cork as procured of dealers allows of being cut in two, so as to stop two bottles.

5. Have ready a vessel of melted sealing-wax, compounded of the following materials and proportions: One pound of rosin, one and one-half ounces tallow, three ounces beeswax.

6. The fruit being sufficiently heated, take bottles successively to a table, and quickly cork them. With a towel in the hand they should be carried in such a way as to close the opening and retain the heated steam in the bottles on the way to the corking table. The corks may be forced in by a blow of a mallet, or better, by a small lever arrangement fixed to work at the right hight above the table. When inserted as far as practicable, if part of the cork remains above the bottle, pare it off with a sharp knife.

7. Immediately after the cork is in its place, a person should stand ready and apply a coat of sealing-wax to the end of the cork, with a paint or leather brush, to close the pores of the wood.

8. Next proceed to seal the bottle by dipping its mouth in the melted sealing-wax, so as to cover the bulb. Then transfer it to a basin of cold water, dipping to the same depth, to cool the wax. If the dipping is carried below the bulb or rim at the mouth of the bottle, there is danger of cracking the glass. Now examine the sealed part to see if the wax has formed blisters. If there are blisters, rub them away with the finger, using a little tallow or oil to prevent sticking.

9. Repeat the dipping operation in wax and in water. See that the wax is left smooth and without flaws, and the sealing is complete.

10. Pack away on shelves or in chests in a cool dry cellar. If placed on shelves, a cloth should be hung before them to exclude the light. In a few days after packing away, inspect the bottles to see if any show signs of fermentation, which may be dected bp a foamy appearance of the fruit. If this is observed in any bottles, it denotes either a crack in the glass, or that the sealing was imperfect. The bottle should be opened or examined, the contents scalded, and the process of sealing repeated as before. In some cases during the season, a little vegetable mould may be seen to gather on the surface of the fruit in the bottles, but this can be easily separated on opening the bottles, leaving the mass of the fruit without harm Two or three persons can carry forward the different operations of preserving at the same time, and with more convenience than one alone.

The rule for syrup given above, is adapted to the strawberry, cherry and other similar fruits.

Raspberry Jam.—Weigh the fruit, and add three-quarters of the weight of sugar; put the former into a preserving pan, boil, and break it; stir constantly, and let it boil very quickly; when the juice has boiled an hour, add the sugar and simmer half an hour. In this way, the jam is superior in color and flavor to that which is made by putting the sugar in first.

YOUTH'S CORNER.

Enigmas, &c.

No. 1.—I am composed of five letters, which, by transposition, spell fourteen different words.

Leave off my first, and I am a word expressing the use of extravagant language.

Leave off my first two, and I am an insect.

Leave off my first and last, and I am a verb in the past tense.

Leave off my first two and last, and I am an adjective.

Leave out my second, and transpose the remaining, and I am an insect.

Leave off my first two, and transpose the remaining, and I am a color.

Leave out my second and last, and transpose the remaing, and I am an animal.

Leave off my last and transpose the remainder, and I am a word expressive of discontent.

Leave off my last, and transpose the remaining and I am a verb.

Leave off the first two and fourth and I am a preposition.

Leave off the first and fourth and I am a small animal.

Leave off the first and fourth, and transpose. the remaining, and I am a resinous substance

Leave off the first and fourth, and transpose the remaining, and I am a word expressing skill.

Leave out my second and fourth, and transpose the remaining and I am a play.

My whole is a name familiar to every American. MARY C. KINCAID.

PORTAGE CITY, May, 1864.

ENIGMA No. 2.—I am composed of 28 letters.
My 27, 28, 8, 15, 11, is a fruit.
My 8, 16, 2, 7, 17, 20, 28, is a vegetable root.
My 19, 6, 29, 21, 9, 10, is a tree.
My 10, 5, 25, 27, 4, is a grain.
My 5, 11, 12, 18, 7, is a grass.
My 26, 28, 9, 22, 11, 1, is a flower.
My 18, 6, 24, is an evergreen.
My 2, 3, 25, is an herb.
My 1, 14, 15, 6, 8, is a bulbous flower.
My whole is a motto or sentiment.

LODI, WIS. ADA E. SIMONS.

No. 3.—I am composed of 10 letters.
My 1, 6, 7, 8, is a kind of grain.
My 4, 8, is a preposition.
My 10, 9, 7, is a fluid.
My 2, 8, is an adjective.
My 5, 6, 7, is a conjunction.
My 1, 6, 3, 3, 4, 8, is a county in Texas.
My whole is the name of one of the Western States.

MARION MONTROP.

Answers to Enigmas, etc., in May No.

No. 1.—"Nevada Territory;" answered by Charles W. Lentt, Union Grove; Letetia Lamb, Waupun; Agnes Stevens, Eldorado; Adela Marshall and Kate Cochran, Lamartine; Jane Felton, Fond du Lac; Minnie Stebbins, Cooksville; Myra Kincaid, Portage City; Mary and Mandie Clark, ———; J. W. and H. L. Morris, Thompsonville; L. A. Thomas, M. A. Jones and A. E. Richards, Racine; J. B. Garland, Van Buren, Iowa; John and Sarah Ames, Oregon; Ada Simons, Lodi; Marion Montrose, Columbus; Minnie Williams, Sullivan; M. C., Windsor; Lizzie Greening, Mazomania; Etta Ives, Oakland; Cadmus, ———; C. Brown, Plymouth; Ellen Helliker, Reesville; H. Schwartz, Troy Centre; Neenah Farmington, Beaver Dam; Hattie Cole, Broadhead; Elizabeth Allen, Berlin; Lomanda Clark, Vinland; Leona Baldwin, Baraboo; Orville Smith, Delavan, and Mary Gilman, Plymouth.

No. 2.—"Pink;" answered by all the above, and in addition by C. Tripps, Fond du Lac; B. F. Williams, New Brookville; P. M. Johnson, Christiana; Addie Montross, Columbus; Sylvia Raney. Ottawa, and Maggie Stevens, Eldorado.

To Conundrum, "Ohio."—Answered so nearly by the above names, that we will not re-print the list, also by Yinee Crawford, Grovesville, and C. F. Edgerton, Fond du Lac.

To Puzzle, "87."– Our little friends must forgive us, in that they were so much more badly puzzled by the "Clock and Mallets" of the May number, than was expected they would be. Over forty incorrect answers came in. Maggie Stevens, of Eldorado, says "No

Times," referring, doubtless, to the mallets alone. The following letter which, substantially the same, was also sent by J. W. Collins, Prescott, explains the puzzle. This one is given the preference because it is to the point and brief.

MRS. H.

MRS. HOYT:—To Geographical Enigma—"Nevada Territory."

To No. 2—"Pink."

To Puzzle—As the wooden boys strike only when they *hear* the clock strike, they would not strike at all, for *wooden boys* cannot hear. The clock would strike seventy-eight times.

To Conundrum—Ohio (o high o.)

F. SANDERSON.

CAMBRIA, Wis., May 13, 1864.

EDITORIAL MISCELLANY.

It's Asking Too Much

To require the publishers of the FARMER to furnish more matter than any other paper in the country, at prices less than cost, and then to wait twelve months for their pay, when the terms are *invariably pre-payment.* With three prices for material and fifty per cent. added to cost of labor, is it reasonable to expect us to patiently wait on delinquents much longer? Our bills, however extravagant, must be paid every month. Will you not pay up then, O ye readers of the FARMER who are in arrears? The sooner the better. Don't wait another day.

How Some People take Care of Grape Roots.

Recently we met a subscriber to whom we had sent a Concord grape root this spring. In the course of conversation he remarked that the grape root which he had received from the FARMER was dead. How did it happen, said we? "Oh, it was dead when we got it." Did you plant it? "No; it looked dry and dead when it came to hand, and I threw it upon the ground. I afterwards threw a shovel full of dirt upon it, thinking that if there was any life it, it would manifest itself" Have you examined it lately? "No;" but I know it could noo live." Let us look at it, said we, and see if the excellent care which you have bestowed upon it has not caused it to grow finely. We went to the spot, and behold it had leaved out and was doing well. Our friend was astonished to find that his labor had been rewarded so richly. C.

Complaints.

We are in receipt of letters stating that the premium grape roots which we distributed in May had not been received. Wherever grape roots were ordered, we sent them. If any subscribers failed to get them it must have been the fault of the mail. In such cases we will make up the loss this fall by sending strawberry plants, unless the DROUTH interferes.

If our subscribers would take the trouble to ask the Post Masters to place the plants and roots in moist earth when received into the office, much of the difficulty in making them good would be obviated. Post Masters *ought* to accommodate their patrons this much at least. The subscriber is also to blame. Not enough care and nursing has been given them. So far as our observation goes, not one in a hundred has succeeded in making the Tribune Strawberries live. Occasionally one who has taken the pains to put them into a box, keep them from the hot sun, and water them with soft water as often as they require it, has succeeded in making them live.

We were unfortunate enough to lose about 900 of our Concords by freezing last winter, consequently we were short this spring; and as Concords were very high and scare we could not get the best, hence in some cases the vines were not as large as we should have been glad to send. In all cases where the fault has seemed to be ours, we will make up the loss, if notified, either by sending strawberry plants this fall or seeds next spring.

Wanted.

A young lady, graduate of an eastern College, will accept a situation in a High School or Seminary. Is competent to teach the English branches, French and German, music (piano and guitar). Can give references.

Address this office.

Couldn't Do Without the Farmer.

* * I am waiting for you to say to the world at large that I do like the FARMER, and dont see how any farmer can think of doing without. I think every farmer will be paid ten fold for his money. In short, I would not do without the FARMER under any consideration whatever. S. J. FORD.

High Prices for Produce

Of all sorts is the programme for the coming year. The farmers will not be in a hurry to sell grain, wool, or anything else so long as they can do without the money.

— A subscriber wishes to know where the *best* shepherd dog can be found.

New Advertisements.

R. C. Browning, of New York, advertises the Universal Clothes Wringer. We have tested the value of his machines, and are able to give them a high endorsement.

See advertisement of Cane Mills, manufactured at the Rock River Iron Works, together with an illustrated notice of the same in Mechanical Department.

Mr. Prentice advertises Strawberries.

[ADVERTISEMENT.]

Premiums for the Diligent!

We offer as a premium one of our Improved Grain Binders to the farmer binding the largest number of acres in one day with our implement. Also to the Farmer binding the largest amount through the harvest; in both cases the grain to rate not less than average, the work to be well done, the ground be measured and properly certified by disinterested parties, and the statements furnished us not later than September 1st. Farmers, let us have your reports early.

W. W. & H. M. BURSON.

ROCKFORD, Ills, June 1864.

County Agricultural Societies

Intending to compete for the Prize Banner offered by the State Society, must file a notice of their intent at this office by the 1st day of September, State Agricultural Rooms, Madison, June 3d, 1864. J. W. HOYT,

Sec. W. S. A. S.

Jottings from our Note Book of Travel.

GLIMPSES OF OLD ENGLAND.—NO. II.

From the classic fields of Stratford-upon-Avon and of Shottery to the smoke and roar of great Birmingham, how marked the contrast! The way hither has been through magnificent scenery, the approach heralded by the gleaming fires of furnaces, the thickening smoke of monster foundries, rolling-mills and manufactories, and by the bewildering dissonances of clank and champ and hiss and ringing crash, which here, as nowhere else in all the world, surprise and stun the ear. It is as if Pluto and Vulcan had joined hands to batter down and re-forge the world, and this Birmingham were their grand, central workshop!

At length the long train enters the great station—perhaps the largest, and certainly one of the most remarkable in the world. It is built of iron and glass; the arched roof being supported upon iron pillars at the sides, without central supports of any kind, and covering a space which measures 1,100 by 205 feet. Across the numerous tracks and over the tops of trains, are iron suspension bridges, connecting the two platforms. Fancy yourselves for the first time ushered into this grand palace of hissing engines, hundreds of hoarse porters' voices, trundled baggage, rushing, struggling multitudes, and ringing bells! You might endure it for a few moments, but scarcely longer, without distraction.

Birmingham is the leading city of England in the working of metals. It is also famous for its manufacture of india rubber fabrics, papier mache, mother of pearl, tortoise-shell and ivory goods, and glass ware. The city stands upon a number of sandstone hills, is well built, and contains a population of a quarter of a million. It owes its greatness to the rich mines of iron and coal in the midst of which it is located, and to the genius of the immortal Watt, which gave the world that wonder-worker, the steam-engine. For many centuries it was a town of no special importance, though so favorably located. But immediately after the application of steam as a

motive power, and the construction of a railway to London—completed in 1838—it became the centre of an immense traffic, and has since rapidly advanced in wealth and population.

Among the many fine public buildings, the town hall is the most remarkable. It has the the form and appearance of a beautiful Grecian temple, is 166 feet in length and one hundred in width, completely surrounded by rows of Corinthian pillars, 40 feet high. At one extremity of the hall stands the great organ, by Hill, one of the finest in Europe, containing four thousand pipes. It is here that those great musical festivals are held which draw together the most distinguished artists of the world. It was here, indeed, that Mendelssohn presided at the first performance of his "Elijah," in 1846. Hospitals, colleges, asylums and churches are numerous and elegantly built.

But all these things interest me less because they are common to all great cities. It was to get some correct idea of the different branches of manufacture carried on here that brought me to Birmingham. I have neglected to provide myself with letters of introduction, and so must rely upon myself and the accustomed courtesy of the English manufacturer.

The moments are precious, and I find it difficult to wait with patience for the business hours to arrive. John Bull is an ease-loving, independent fellow, and will take his own time. The *workmen* are at their posts soon after the American hour, but none of them have authority to admit strangers, and the proprietors are as late as nine or ten o'clock in getting out to their offices. This is not peculiar to Birmingham. Everywhere in England business begins later than in America. The Yankee is greatly more nervous and restless. Breakfast must be early; and grace, if said at all, must be very quickly said. Jonathan maketh haste to be rich; John, being rich already, is content with slower gains.

Another thing I have discovered: English manufacturers have much less confidence in the superiority of their inventive genius than our Yankee manufacturers have. Every visitor, unless introduced by some one favorably known to the proprietor of an establishment, is regarded with suspicion, and in most cases excluded. But for my commission under the seal of the State, which I could fall back upon when my face failed to make the necessary impression, I am satisfied that my visit would have been, to a considerable extent, fruitless. These statements ore made as a warning to other travelers who may be inclined to trust too much to good looks. More than any other people in the world, we Americans are regarded with jealous anxiety by English inventors. The reason is obvious; In all those manufactures in which the English excel other European inventors and artisans, the Americans are rivals, in many classes of manufactures *more* than rivaling their transatlantic competitors. Then it is well known, the world over, that the Yankee intellect is quicker in those matters than any other, and that one of our real mechanical or scientific geniuses only needs to pass carelessly through an immense establishment to get most, if not all, its valuable secrets! No wonder they are afraid of a gentleman wearing a soft, slouch hat, and speaking the English language in its purity! I don't blame them.

8 O'CLOCK, P. M.

The day is two-thirds gone, and although I have been on the wing ever since sunrise, I have, of course, as yet only an inkling of the immense number and extent of the mammoth manufactories which have made Birmingham a name familiar and famous in all countries.

ELECTRO-PLATING THAT BEATS THE WORLD.

Elkington, Mason & Co.s' great electro-plating establishment, in Newhall street, and said to be the largest in the world, first received my attention. The proprietors received me with great kindness, and deputed an intelligent messenger to show me around.

I have long been familiar with the process of electro-plating, having, in the laboratory, conducted it myself; but I will confess that I have hitherto had only a very partial idea of the magnitude of the scale on which the business is here carried on. Buildings covering

many acres of ground and magificent show rooms filled witn every description of wares plated with copper, bronze, silver and gold. The casting, polishing, electro plating and final polishing each has its distinct department. The plating department occupies a very large area filled with the chemical vats in which hundreds of articles, from the simplest to the most elaborate and costly, are receiving their deposits of the precious metals. The method and the philosophy are as follows: The surface of the article to be plated is first thoroughly cleansed by boiling in an alkaline solution, then dipping in nitric acid, and finally scouring and again immersing in nitric acid just previous to commencing the process of electro-plating. When ready, the article is suspended in a trough of cyanide of potassium by a copper wire to a metalic rod connected with the zinc plate of a galvanic battery; a silver plate connected with the other pole of the battery by a similar rod being suspended in the solution of the cyanide on the opposite side of the trough. The article to be silvered being the negative pole, the current passes the moment that it and the silver plate are both immersed in the solution, and in its passing bears along with it millions of invisible particles of silver, depositing them upon the surface of the article to be plated. In a few seconds the entire surface is covered with a film of silver, when the article is taken out and rubbed with a hard brush and a little very fine sand. It is then put back in the solution and there left for several hours, at the expiration of which it will have acquired a coating of dead white silver, as thick as tissue paper. If a thicker coating is desired, it only requires to be left longer in the solution. Beautifully simple, and so much better than the slow, old fashioned *washing* and *hand plating*.

When a coating sufficiently thick has been given, the article is then polished with a hard brush and whiting, or burnished. This puts on the mirror-like lustre of the finished silver.

From the foregoing it must be apparent that the manufacturer has an excellent opportunity to swindle the purchaser, inasmuch as the latter, without using some chemical or mechanical test, has no means of knowing whether the plating is as thick as desired, or whether it is only a mere film. In France, electro-plating is regulated by law; every manufacturer being required to weigh each article when ready for plating in the presence of a comptroller appointed by the government, and to report the same articles for weighing again when the plating has been done. In this way the comptroller knows to the fraction of a grain the amount of the precious metal that has been added, and puts his mark upon the wares accordingly, so that every purchaser may know at a glance just what he is buying. In America it is not so, and I have not learned that there is such a law in force in this country.

The hardness and evenness of the plating depend upon the strength of the battery and the motion given the article when receiving the plating; a weak current leaving the silver quite soft, and the motion causing the silver to be more evenly deposited A battery may be used so strong as the make the plate as hard as silver coin.

As to the amount of silver consumed in ordinary plating, a word: An ounce and a half of silver will give to a surface a foot square a coating as thick as common writing paper. And since silver is worth $1,25 per ounce, the value of the silver covering a foot square would be about $1,87. At this rate a well plated tea pot or coffee pot is plated at a cost in silver of not more than $1,50 to $2,00. The other expenses, including labor, would hardly be more than half that amount.

Electro-gilding is done in like manner. The gold is desolved in nitro-hydrochloric acid, washed with boiling nitric acid and then digested with calcined magnesia. The gold is deposited in the form of an oxide, which, after being washed in boiling nitric acid, is dissolved in cyanide of potassium, in which solution the articles to be plated with gold, after due preparation, are placed. Iron, steel, lead and some other metals that do not readily receive the gold deposit, require to be first lightly plated with copper. The positive plate of the battery

must be of gold, the other plate of iron or copper. The process is the same as that above described.

The popular notion is, that genuine electro-gilding must necessarily add a good deal to the cost of the article plated. This is erroneous. A silver thimble may be so handsomely plated as to have the appearance of being all gold for five cents, a pencil case for twenty cents, and a watch case for one dollar. An estimate of the relative value of electro-gilding, as compared with silver plating, considering the cost of material alone, is about as 15 to 1.

A MAGNIFICENT BRASS FOUNDRY.

On Cambridge street I found the far-famed "Cambridge Works," conducted by Messrs. Windfield & Son, extensive manufacturers of tube, gas fittings, metallic bedsteads, &c. The Messrs. Elkington & Mason were kind enough to give me an introduction, and I spent an hour very pleasantly and profitably. The gas fittings, chandeliers, condelabras, &c., were, some of them, duplicates of those that I had seen at the Great Exhibition, and as beautiful as the best cultivated taste could desire. Bedsteads in great number and variety—iron and brass. Wood is fast going out of date in all parts of Europe. The metallic bedstead is not much more expensive, lasts forever and is not subject to that odoriferous pest so trublesome where wood is used. The cheap, plain, painted iron is not so handsome, I think, as blackwalnut, but my taste has not yet been sufficiently educated in that particular, I suppose. The bedsteads with hollow posts, moulded in fancy forms, are better looking and more expensive. The finely polished hollow-post brass bedsteads are, some of them, magnificent. One, with posts eight or nine feet high, and with head, foot and canopy richly ornamented, was made at an actual expense of £1,000, ($5,000,) and shown at the first World's Exhibition. Everybody admired but no one felt able to buy it! Even kings and princes are now and then compelled to acknowledge a limit to their means. A sort of comforting thought to those who are compelled to sleep on wooden bedsteads, worth from four dollars to fifty. Mr. Winfield told me that the Pacha of Egypt, who likes elegant things, and is a good deal inclined to indulge his taste, offered $2,500 for it, but shook his head when told that the figures first mentioned were the lowest.

OSLER'S GREAT GLASS MANUFACTORY,

On Broad street, stands at the head of all establishments of that sort. The head manager showed me about, and seemed to take great pleasure in explaining how the finest as well as the common work was done. At Pittsburgh and at other places I had seen moulded and blown ware manufactured, but here the finest *cut* glass is made that finds its way into the best markets of the world.

In the cutting department there was much to interest me. In a long room, in the form of an ell, and probably two hundred feet from end to end, are numerous grindstones and metallic and wooden wheels driven by steam. Some are kept moist and made sharp by dripping sand and water; others are coated with emery. The first do the coarse, the latter the fine kind of work. Some of the wheels are flat on the edge, and some are bevelled off to an edge more or less sharp according to the fineness of the work to be done. The operator takes the pitcher, the decanter, wine glass or other article to be cut in his hand, and applies it to the wheel just so as to give it the finish required. Wine glasses, worth from two to four dollars each were cut in my presence. The delicate vine, flower, or other more difficult design, being cut thereon with as much ease and apparent carelessness on the part of the workmen as that with which I now scribble these hasty notes. A single touch suffices for a grape; a moment's touch and turning of the hand makes the delicate spiral tendril of the vine. The extra value of the cut glass is not, therefore, all in the cutting. Some of it consists in the superior quality of the glass used.

Button factories, gun factories and steel-pen factories have also been visited, but I am only the more weary on that account, and must make ready for my journey to Manchester, the

great heart of the cotton manufacturing business. I would like to stay here a week to visit the mines and many noted places in the suburbs and vicinity, but time flies and I must be off. Good bye to Birmingham.

— Get ready for the State Fair!

[ADVERTISEMENT.]

That Report of the Sorghum Convention.

EDITOR WIS. FARMER:—My attention has been called to an article in the advertising columns of the June number of the FARMER, from Mr. O. S. Willey, one of the secretaries of the late State Sorghum Convention, referring to a caution I published in my Sorghum Machinery Circular, denying the truth of my allegations therein set forth, &c.

In that article I made no reference to any other member of the publishing committee except the chairman, Mr. Willey; nor do I suppose that the other members of said committee had any knowledge of, or participation in the charges that I alleged. I am quite sure they are gentlemen above so improper an act. Hence it was wholly unnecessary for Mr. W. to bring in their names, except for the purpose of dodging the responsibility himself.

What I did in substance allege and still repeat, is, that the report of the committee on machinery, was changed after it was made up and signed by all the members of said committee, and delivered over to the said secretary of the Convention or chairman of the pulishing committee, as the case may be, *and new matter introduced of an advertising character.*

After said report was made and submitted, it was shown me by the secretary as a final report of said committee, as it was going to the printer, after which the changes were made, without the knowledge of parties generally interested, or of the machinery committee as a committee.

Now I am prepared to show by conclusive evidence, that such is the fact, notwithstanding any denials or gainsayings from any source. And as to the statements of the two subordinate members of the committee, excusatory of the charges, I would say, that when I called their attention to said charges, soon after the appearance of the report of the Sorghum Convention, they denied having authorized such changes, and condemned the act on the part of Mr. Willey in severe terms.

This I can prove by witnesses then present. What reasons they have had for since modifying their views upon the subject, I know not.

If such eleventh hour changes were desired, why was not the chairman of the committee, Hon. Wm. Blair, then sitting in the senate, in the city, consulted on the subject. He had signed the original report as chairman, and considered it finished. It strikes me that it would have been extremely proper to also have submitted it to him, if changes were to be made.

It will be observed, that the mechanical description I made of my machinery, at the request of the committee, was before the preparation of their report and not after.

With the foregoing explanations I have nothing further to say upon the subject at present; the public are left to form their own conclusions upon the matter, and to place the wrong where they deem it to belong.

Most respectfully yours,

D. J. POWERS.

MADISON, June 20, 1864.

[ADVERTISEMENT.]

SLANDEROUS STATEMENT REFUTED.

EDITOR WISCONSIN FARMER:—In a pamphlet recently published by Mr. D. J. Powers in the interest of certain Sugar Cane mills and other machinery, manufactured and sold by him, under the head of "Caution," the charge is conspicuously and boldly made that the Proceedings of the late State Sorghum Convention, held at Madison on the 3d, 4th and 5th of February, were so perverted by the Publishing Committee as to give unwarrantable prominence and advantage to certain other sorghum machinery. This is a grave charge, and, since I was myself not only a member of the Publishing Committee referred to, but likewise the secretary of the Convention, having care of the records and of their publication, I deem it my duty to say, as publicly as possible, that it is utterly false and without

foundation, except in the fertile imagination of its too reckless author.

The other members of the Publishing Committee were Hon. M. K. Young, of Grant, Hon. E. Wilcox, of Fond du Lac, and Hon. W. W. Field, late Speaker of the Assembly—all gentlemen above reproach, and each of them ready to substantiate the correctness of the statement here made.

But I am competent to produce yet other testimony, as will appear from the accompanying statements made by members of the Committee on Machinery, whose reports are alleged by Mr. Powers to have been perverted. Please give them a place in your forthcoming number of the FARMER, and oblige

Your Obedient Servant.

O. S. WILLEY.

MADISON, May 31, 1864.

MADISON, MAY 30, 1864.

GEN. DAVID ATWOOD, *Chn. State Sorgo Convention.—Dear Sir:*—We have recently been shown a pamphlet published by D. J. Powers, in which he accuses a member of the Publishing Committe of the Sorghum Convention, held at Madison last spring, with materially altering the Report on Machinery after it left our hands. It is no more than justice to Mr. Willey, the gentlemen referred to, to publicly say that Mr. Powers and Mr. Skinner were both allowed by the committee to describe their own machinery on exhibition in their own language, and that Mr. Powers handed me a lengthy description of his machinery before we wrote out our report, and after the report was written we handed it over. Mr. Skinner made a slight addition to the description of his machinery, which we assented to. The description of Clarke's and Utter's machinery was copied from their own work; also the description of other machinery was copied from descriptions from the manufacturers.

JAMES CAMACK.

Mr. Skinner called upon me to-day in regard to the alleged alteration of the "Report of the Committee on Machinery." I would state that Mr. Skinner asked me, as one of the committee, if I had any objection to his making a change in the wording of the paragraph on page 28, (of a pamphlet published by the State, called "Proceedings of the Wisconsin Sugar Cane Growers' Convention," commencing with "The adjustable principle of these mills is a new and distinctive feature," &c. In reply I stated that I saw nothing objectionable, and at once gave my consent. I see nothing objectionable in the description of Cook's Evaporator.

Whatever changes, aside from this paragraph, if any, were made I had no knowledge of it at the time.

NORTON.

[Advertisement.]

THE KIDDER HIVE.

In reply to queries of L. L. F. and others, I will say that I have used the Kidder Hive for the past season, and am fully satisfied that it comes up to the recommendations of the inventor, both as a summer and winter hive. As the hive is made in double form it secures the most perfect ventilation, always under the control of the bee master.

Although last season was considered one of the poorest for bees, and the past winter one of the most destructive, yet my bees did well, and I lost only one stock in this kind of a hive out of ten which I commenced the winter with, and they were left out in an open bee-house.

I have never used the separators, as I have no difficulty in making them build stray combs without them; and by using nine frames in a hive they have no room for dove combs. At least I find it so in mine, and this is all that is sought by the use of the separators.

I should be happy to answer any communication, either through the columns of the FARMER or by letter, that can be of benefit to the bee-keeper, and hope to receive their experience in return.

B. S. HOXIE.

COOKVILLE, Rock Co., Wis.

[Advertisement.]

SPECIAL PREMIUM.

Believing the Sorghum interest to be a great and important one to this State and the Northwest, and wishing to do what we can to develope it, we offer the following premium to all, who are disposed to compete for it, in the State.

For the best twenty-five acres of cane grown in the same neighborhood, by one or more parties,

A complete set of our most improved *Two Horse Separate, Geared Sorghum Machinery*, with Bagasse carrier, evaporator, heater, smoke pipe, skimmers, and all the fixtures complete for setting up and operating, worth at the shop $260, cash, and capable of making from 150 to 200 gallons of syrup per day.

Parties proposing to compete for the foregoing premium will need to send to me for entry blanks and circular of instructions, &c. The earlier attended to the better.

D. J. POWERS.

Madison, Wis., Feb. 20, 1864.

THE

CONTINENTAL

INSURANCE COMPANY!

CASH CAPITAL

$1,345,386 92!

OFFICE, 102, BROADWAY, NEW YORK.

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CHARACTERISTIC FEATURES OF THE CONTINENTAL INSURANCE CO.

THE system on which this Company is based is popularly known as "The Participation System." The following are some of the reasons for preferring the Continental to any other Insurance Company:

1. It enables customers to obtain their insurance as near cost as is consistent with reliable security, with the additional advantage of having that security increased with each successful year's business.
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3. Special attention is paid to insurance of Homesteads and Farm Property, including Grain in stacks, and Live Stock on farm.
4. This Company pays for damage done by *Lightning* to property insured by it, to the full amount of the damage, *whether fire results from the lightning or not.*
5. Any person insured in this Company may, at his request, have his policy cancelled at any time, and have his money refunded for the unexpired term, in which case the Company will retain the customary rates for the time the policy has been in force.
6. The effect of the "Participation system" is to leave in each State the principal part of the amount received by the Company for premiums; for instance, all the money paid for losses, the principal part of the expense of conducting the business, the State and Revenue tax, and three-fourths of the net profits divided to its customers, are all retained within the State, thus giving all the advantages derived from local and State Mutual Companies.
7. This Company has also reserved the important right to issue policies which do not entitle the holder to participate in the profits. Such policies do, however, entitle the holder to all the security which the system provides, and will be issued at prices as low as experience proves to be equal to the hazard, and therefore as low as any respectable and permanent company can insure.

A ledger account is opened with each person or firm participating in the profits of the Company's business. Below will be found a practical example illustrating the "Participating" system:

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, AUGUST 1, 1864. No. 8.

Winter Wheat Growing.

Why not grow winter wheat more generally in Wisconsin? is a question of peculiar pertinency just now, and after the good success of the present year, with the general failure of the spring wheat crop, many will be induced to sow largely this fall, trusting in a snowy winter and a moist spring to carry it through successfully.

Now while it is very desirable that we may have a favorable "wheat winter," i. e., with plenty of snow, so uncertain is it that a word of caution may not prove useless.

Confident that this crop can be safely and surely grown with proper treatment, and in view of a large breadth being sown, I wish to offer a few suggestions upon the conditions of success:

1st. It is very necessary to secure a vigorous autumn growth before severe freezing, the better to resist the influence of open winter. To secure this, sowing should commence the middle of August and not be delayed after the 1st of September. Any excess of growth or tendency to spindle, can be easily checked by a moderate grazing. But in this latitude there is little to fear from this cause, as the cool autumn weather induces a v gorous, spreading habit of the stool.

2d. To insure successful wintering, it is necessary to have *some winter mulch*. Abundance of snow insures the crop until summer, but as the southern portion of the State especially is very uncertain in this respect, it is positively necessary to adopt some ready mode of artificial covering or protection.

Among the various plans is one I have seen used successfully years ago, which is to sow among corn at the last working with cultivator, and letting the stalks stand until growing weather in the spring, thus affording a partial shade and break-wind to prevent the snow blowing off, and the effects of drying winds of March.

But the course I would especially commend is to *return the straw to the field during winter*. Now I fully believe there is straw enough burned in most sections, especially on the prairies, to insure a fair crop of winter wheat. The farmer that grows 40 acres of wheat, can, after reserving all his cattle need, distribute evenly the straw over, say, 20 acres of winter wheat—more or less, according to the bulk—and thus serve a double purpose, *preserve his crop and redeem his land* from the notorious robbery so disgraceful to western agriculture. As to the time this should be done, I should say soon after the ground is fairly shut up with frost, and a very thin coat evenly spread will secure a safe wintering and vigorous growth to the crop. J. C. P.

MADISON, WIS.

The above suggestions are worthy the consideration of our farmers. Every year adds to our conviction that winter wheat should be grown more extensively than now. Early sowing is important, and Mr. Plumb's recommendation on this head is deserving of emphasis.

[From our South American Correspondent.]

Equatorial Vegetation.

MR. FARMER:—To the suggestions of my October note, printed in your December number, I beg leave to add, that I deem it entirely unsafe to write after dinner; and especially to write, as I then wrote, from a great coffee harvest on the Hacienda of the British Minister, where flowed freely old port and the genial beverage which glorious old Jack Falstaff so delighted to sip, in the Dolphin Chamber, in East Cheap, at the round-table, by a sea-coal fire, upon Wednesday, in Whitsun week, while he swore to Dame Quickly, on a parcel-gilt goblet, viz: sherris-sac. But for this, I am quite sure I would not have been so free with the private opinions of the good old lady.

Well, speaking of gun-flints reminds one of shooting, and it is equally natural to pass from coffee to cacao and cotton. As to the former, it is the neglected shrub of this country. It steals its way into fence corners, rocky knolls, &c., and receives little attention except to be cut down or grubbed up, unless its exhilarating berry be wanted in the kitchen, when it is only necessary to reach out and take it. Yankee energy and ingenuity could soon make it as cheap as peas, all the world over. An enterprising young man from the North need seek no surer and quicker road to fortune than the culture of coffee.

The same may be said of cacao, or the kernel from which chocolate is made. A pleasant, nutricious beverage, taken here in its purity, but utterly worthless as used with you. Its only fault is, that its frequent use gives great encouragement to the dental art. It is dear everywhere, but may be produced almost as cheap as coffee.

As to the cotton tree, I regret to say, that all the noise lately made about it in the United States is sheer *humbug*. It grows wild in most localities, where the temperature is never lower than 60° Fah. In a colder temperature it *cannot* be made to grow. It is a beautiful shrub, bearing two kinds of flowers—pink and yellow—on the same branch. The fibre is of good quality, and the yield abundant. Some people in Europe and the United States believe it is the ordinary cotton plant converted into a tree by perpetual summer. This is a mistake. Both grow side by side: one annual, the other perennial. I enclose some of the seeds and fibre. Mrs. Hoyt will find it a very handsome parlor shrub.

This is the headquarters of the vegetable world; but as few, if any, of the trees or plants could be acclimated in our country, a description would not interest you. Flowers entirely unknown to us, and of the rarest beauty, grow wild all through the Andes; but owing to the scarcity of bees and like insects to fructify them, the seeds are generally abortive. The only means of securing a flower for hot-bed culture at home, is to take the plant. I have a collection of drawings and plants, which I hope some day to show you, whose incomparable floral gems are worthy to adorn the brow of Venus herself. Hasta luego,

Guerido amigo mio,

PELEG.

LAS MERCEDES, April, 1864.

We regret that our esteemed correspondent, who, as before stated, is no less a personage than the American Minister at the Court of ——— should have been influenced by the *spirits* to write what he now regrets to have said; but we are still of the opinion, that his shaft did not fall far from the mark. Hope he will favor us frequently, and with the utmost freedom criticise whatever needs reform. The remoteness and the loftiness of his stand-point on the tops of the Andes, at the Equator, must enable him to see, with greater comprehensiveness and impartiality than we can possibly do, in the midst of what we would view. Only this one word of caution, our dear "Peleg": In the future, be more wary of that artful British Minister. In all respects he represents his government, and would just as soon get you into trouble as not. Join the temperance society before you dine with him again.

Thank you for the several specimens. Anything further you may be pleased to

write us concerning those highly interesting tropical lands will be gratefully received by THE EDITOR OF THE FARMER.

For the Farmer.

The "Combination" of Farmers.

MR. EDITOR:—I think there should be some reform or change from the present mode of doings among farmers, as to selling their produce. The better way, I think, would be to form a U. S. States Society, then societies in each State, and in each county in each State, all branches of the U. S. States Society, combined together to hold on to the produce they have so hardly raised. If all would combine together to keep it out of market, they could get a fair price for it. If some must sell their produce, let the society buy it, giving them the present market price, together with one half the rise, then put it in the society's store-house and keep it, not letting one ounce of food or clothing material go to market until poor loafers and speculators pay a price set by the farmer instead of themselves. I would like to hear from others on this subject, and particularly from the editor. SETH ROWLEY.

WAUTOMA, July 5, 1864.

REMARKS.—It may hardly be etiquette for us to speak first, in reference to our correspondent's suggestions, but inasmuch as postponement is very liable to result in our forgetting altogether what we had intended to say, our readers will pardon our promptness in saying our say on this interesting and important subject.

We as thoroughly reprobate the combinations of "loafers and speculators" as do you, friend Rowley. Our brief article on "The Conscience of Capital," in the July No., was prompted by the same kind of sentiments as those expressed by you. Still, it is possible that we may differ somewhat as to the applicability of the remedy proposed. The truth is, we don't much believe in "combinations" of any sort. They are in violation of the natural laws of trade which always give fair and equitable results if uninterfered with, and, except in necessary self-defence, are just as reprehensible on the part of farmers as on the part of any other class.

As farmers we complain bitterly of the combinations of merchants, manufacturers, factors and brokers, and yet there is but little reason to doubt that if farmers had the same facilities for effecting combinations, injustice and even extortion would characterize their action also. Human nature is about the same in all classes. A retired and quiet life, in the midst of beautiful, honest nature, doubtless has a tendency to keep men from all the vices into which they would fall if daily subject to the temptations of a great city; and yet notwithstanding these restraining and elevating influences of nature, in a very different sense from that which Burns meant to convey,

"A man's a man for a' that."

The difficulty is just here. Farmers are too numerous, too isolated, and, worse than all else, too little informed as a class to render combinations among them possible.

It would seem, at first thought, that society organizations might effect something for farmers in the direction proposed; and yet, so far as we know, whenever and wherever the experiment has been made it has failed and the whole scheme been abandoned.

The best remedy we know of against the swindling and gouging of which farmers are too often the victims is INTELLIGENCE.

It's not so easy for me to say what my neighbor may sell his wheat or wool for, but, if out of debt and unpinched by dire necessity, it is perfectly easy for me to say that I will not sell the product of my own labor and management for less that such or such a figure—said figure being determined by a due consideration of the demand and supply.

"But," say you, "this demand and supply, how are we to get at it so as correctly to base our action thereon?"

That can only be arrived at by a careful consideration of a number of modifying circumstances, such as the condition of the country, the amount of old produce on hand from previous years, the character of the present year's crop at home and abroad, &c.,

&c.—circumstances with which one can only become familiar by studying the principles of political economy, and by keeping relations of intercommunition with the rest of the world through the medium of the periodical press.

If farmers were as complete masters of their business in all its departments as the commercial classes in theirs, they would less frequently be found growing crops for which there is no demand, and neglecting much easier means of acquiring wealth and independence.

The societies already formed—agricultural societies—might make themselves more useful than they now do by diffusing practical information on these important matters, but we very much question whether there is anything feasible in the scheme proposed by our worthy correspondent—EDITOR.

Couch Grass.

EDS. RURAL NEW-YORKER:—How can I destroy Couch grass, which is extending very rapidly over my farm, especially in one portion, rather low? A few years ago I think there was scarcely a root on my place, but now in some places it is almost impossible to get a crop. Is there any way of destroying it at once?—M. T., *Orleans Co., N. Y.*, 1862.

There can be no question but this grass is becoming exceedingly troublesome, and an easy way to destroy it has not be discovered, that we are aware of. It is very tenacious of life, and we have taken up plants that have been buried for a couple of weeks where even the leaves did not appear discolored. But, the great difficulty is with the roots or under-ground stems. They increase rapidly, spread over a large surface, and the first intimation we have of their existence is the appearance of the young shoots, making their way above the surface, A small particle of root left in the ground soon forms a new plant, and if neglected, a thousand. The only way we have ever succeeded in keeping down is to remove the roots from the soil with a fork. This is effectual, if faithfully performed. If any one knowns of a better method we should be happy to learn it. As this grass flourishes best in a damp soil, draining is of advantage. *Rural New-Yorker.*

[From the Report of the Department of Agriculture for 1862.]

The Manufacturing of Sorghum.

BY J. H. SMITH, OF ILL.

MILLS.

A good mill in this business is a thing of the greatest importance; for if that breaks down or stops, the work in all its departments must stop; but when that goes and performs well its part, then all other parts of the work must move briskly forward. The mill, therefore, needs to be well and thoroughly made in all its parts, for no time should be lost in mending or repairing after the work has been once commenced. Its capacity should be graded according to the extent of the crop. If one has twenty-five or thirty acres of cane, he needs a mill capable of expressing 150 gallons of juice per hour, unless he expects to run both night and day. We have heretofore used a mill manufactured in Cincinnati, but consider it susceptible of improvement, and shall endeavor to improve upon it hereafter. A mill that will express 250 gallons of juice per hour may cost a little more at the outset, but as it costs no more to attend it, and as the same number of hands can run it that would be required to run one that would express only 50 gallons per hour, we believe it would really be a saving of expense before the season was over to lay out a little more money in the beginning. While a small mill would only make about forty gallons of sirup per day, a large one, with a very little more expense, would make 150 gallons per day.

HANDLING THE JUICE.

A tunnel seive may be used for conducting the juice from the spout of the mill to the filterers over the pan, and this renders handling unnecessary until it is passed into the evaporator, where it should be concentrated to 15° Baume. It being then thoroughly defecated, it is then passed, while hot, through three tub filterers, set directly over each other, and which may be of the following dimensions, viz: three feet deep, three feet square at the top, and two feet square at the bottom, which is perforated, with flannel over it upon the bars, then filled with bone-black or animal coal. These filterers should be so placed that, by turning the cock, the liquid can be run off into the last concentrating pan; then drive the fire till the saccharometer indicates 40 while hot; then run it off into a large flat cooler, which will hold the labors of the day, without having the sirup more than two inches deep in the cooler when hot, lest it should

scorch, as there is more danger here than over the hot fire, where the boiling and commotion gives it no time to burn.

EVAPORATING PANS AND CLARIFYING.

If Cook's evaporator is used, it clarifies and makes the sirup and sugar without the aid of another pan, or the assistance of any chemical agents, and thus is preferable for a small business to almost any other pan with which we are acquainted. If one uses a pan of this style, (two would be needed,) it may be 25 feet long; the width of sheet iron 28 inches, 3½ feet at the top, and made flaring. It should be partitioned off into three divisions, and be set upon a continuous brick arch 15 inches wide, and the fire should hug close to the pan. In this way 100 gallons, at least, of good sirup can be made with half a cord of wood. One will need, however, with this pan, a defecating pan to receive the strained sap and clarify it as above described, and this clarifying pan will keep the long pan at work. But if one wishes very nice sirup, he should run the clarified sap, while hot, directly into the filterer, say a tank of seven feet high and four feet in diameter, with a perforated bottom, and with a cock twelve inches from the bottom, to turn the juice from the tank into pan; place bars upon the perforated bottom, and a flannel cloth to keep the dust or coal from mixing with the juice; then put in three feet of animal charcoal or bone-black, and spread a cloth over it, and put two feet of wood coal upon the top of this, about as fine as shelled corn, and let in the juice. When ready to start the long or finishing pan, turn the cock and let on the filtered juice as fast as it may be required.

DISPOSAL OF THE SCUM FROM THE EVAPORATOR.

The scum is worthless till the juice is concentrated to about 15° Baume. except to feed to stock. They are very fond of it, and devour it greedily. After this one can save the scum by putting it into a tank for that purpose, and at leisure, after it has settled, draw it off and run it over the pan again, till the juice has arrived at about 20, when the scum will produce as fine flavored sirup as any. It may be well to run it through the filters, and the scum taken from this will make good vinegar. In fact, if all the washings are saved, ten or fifteen barrels of good vinegar can be made in manufacturing thirty or forty barrels of sirup; or, if something stronger is desired, an excellent brandy can be made, from all fermented saccharine juices, that is worth from two to four dollars per gallon. Forty gallons of this juice will make four of good spirits.

DRAINAGE OF MUSH SIRUP INTO SUGAR.

This is the most difficult part of all our labors, for it does not naturally drip dry. The quickest and most successful way we have found to obtain sugar is to push the mush into a coarse, strong bag, and put it into a strong hoop similar to our common portable cider-mill hoop; then put on the pressure of the screw, and if the room is warm the molasses will soon leave dry sugar. Another mode of drainage is to have a large table, say twelve feet square, with sides four inches high, and the centre as high as the sides, and gradually sloping to the corners, where a spout should be placed to carry off the molasses; if the room is kept warm it will soon drain to dry sugar. By either mode clean, dry sugar will be obtained, free from any cane taste, as that leaves with the molasses.

"Book Farming."

MR. EDITOR

Oh, the beauties of Book farming the papers, said 3 or 4 times in 1863 feed sulphur to sheep, to clear off the ticks. so I did according to rules given. well now I have the fruits of it in full—It is about $100.00 damage to my 125 sheep, so I have bot & consulted Randalls sheep Husbandry, & he recommends no such thing. ah wal bad management says some some inexperienced scribbler, JAS. PIERCE.

[Slightly inconsistent, it strikes us, friend Pierce. You affect a contempt for "book farming," and yet you are not only a subscriber to the FARMER, but have even purchased a copy of Randall's Sheep Husbandry! You say, "the papers said, feed sulphur," &c. What papers? Probably the political *news*papers, that make no pretentions to *knowing* anything about the value of the recommendations they quote. You certainly saw nothing of the kind in the FARMER. By turning from the newspapers to a *book* you convict yourself of either insincerity or inconsistency. Intelligent men ought to know that very nearly if not quite all the really valuable information possessed by the world, in these times of extraordinary facilities for printing, is to be found in books, which are simply the recorded thoughts and experience of the best thinkers and workers of all times.—EDITOR.

Experience with the Chili Potatoe.

MR. EDITOR:—In your last issue you mention the Garnet Chili potato and ask those who received seed of you to report progress. I planted a bushel and a half last year, not from seed obtained of you, but nevertheless you will be glad to hear of their success.—They produced fifty bushels of very large potatoes perfectly free from disease; all I could spare readily selling at a dollar the bushel for seed. I planted thirteen bushels this spring, but owing to the dry time they do not look so flourishing as I could wish I presume I need scarce tell you it is a good keeping potato and first rate boiler. I shall have none for sale. W. Low.

NOTE.—We would like to inquire of friend Low whether he found the Garnet good for spring use. We tried a few them several ways and found them *watery* every time.—EDITOR.

Reasons for Taking an Agricultural Paper.

Is not the subject one of sufficient importance to interest you? Is not the practical experience of other farmers of value? Have you attained that degree of perfection in farming that you cannot farther improve by your own or the experience of others?

You answer these questions, except the last, in the affirmative; but you say, "I have not time; if I get time to read the current news of the day, I think I do well."

But, is not agriculture of sufficient importance compared with politics and passing events, so as to justify your giving it at least 1-30th of your reading time? When my boy comes from the post office with the newspapers and the *Valley Farmer*, I sit down and read the latter named periodical first, and for the following reasons:

1. Etiquette requires it. If you have two or more visitors, one only able to call once a month and the balance calling once a week; the former able to give you practical advice in your business, whereas the others only able to amuse or instruct—if these Mr. Weeklies are men of sense, they will excuse you for taking a preference to the conversation of Mr. Monthly, they knowing, that when he is absent, you give them your undivided attention.

2. Interest requires it, because you may get a practical idea, that you can in your business improve by even the next day; whereas if a train of cars has run off the track, a steamboat or building destroyed by fire, through the carelessness of others, you could not help it. It may to certain parties be a severe calamity, but the knowledge of it to others is only valuable as one of those lessons of experience by which we may profit.

3. Labor is saved by it. A thrifty farmer has labor daily of a twofold character to perform; mental, to plan; physical, to accomplish; his success depends as much upon the former as latter. In a practical, agricultural journal, ideas can be gleaned to save much of the former, and occasionally much of the latter.

Lastly. Success requires it. The great secret of success coupled with energy is: 1. Understand your business; and, 2. Mind your business.—*Cor. Valley Farmer.*

Salting Hay.

There is a good deal of testimony from farmers in circulation against the practice of salting hay as it goes into the mow, because it renders the hay moist, and is not a preservative. What do the practical farmers think about it? There is no doubt that there may be too much salt put on hay; but it by no means follows that a reasonable quantity will not be of benefit rather than damage.—*Rural New Yorker.*

We hope none of our readers will be put in doubt by such nonsense as the above. If hay can be put into the barn or stack well cured it will, of course, need no salt to help season it; but if not, then we unhesitatingly recommend the use of a moderate quantity of salt—the amount being proportioned to the condition of the hay. One or two quarts to the load will serve a good purpose as we very well know by experience. Clover is much better for being put into the barn on the same day on which it is cut, as it is so easily damaged by dew, and will, therefore, usually require a little salt. The hay will keep better for it and your stock will eat it with a better relish.

The Illinois Farmer.

Mrs. C. M. Kirkland communicates to the *Independent* the following fancy sketch of those independent fellows, the Illinois farmer and his "help:"

The Illinois farmer is a queer fellow.—Full of energy, he is yet so proud that he despises the delving and steady industry on which wealth depends in the older States.—He likes money, but he wears an air of sovereign indifference about earning it. His fences may be so poor that his fields enter-

tain all the stray animals of the neighborhood, but he says, "There's plenty for all, and it don't pay to be bothering with fences." His cattle and pigs are cut to pieces by the railroad trains, but he "can't help it! they *will* run there." He scratches over a vast extent of ground, gets half a crop, and sits down perfectly contented, though the other half might have been had for a very little extra trouble. He has a poor "shackly" barn, and his barn-yard may be a pool, but he will not dig an outlet, even though there be a deep railroad drain within ten rods—"its too much trouble!" His standard of home comfort is rather low, and you will find when you go to visit him that you must climb over the fence in front of his door, as a gate would be too troublesome. Inside the dwelling, comforts are so scarce that you may suspect poverty as well as carelessness. But no! there is money in bank, and very probably a cupboard full of silver cups and other nice things, prizes from fairs and cattle-shows.

One cause for the apparent thriftlessness of farmers is the great price of labor here. What a man and his sons cannot do with their own hands, lies undone, because a hired man of whatever capacity, requires such wages as can only be earned by one at once faithful and capable. As a few of the men who will work out for wages are very competent, it becomes a question whether the work is doing at such cost. Thirty-five dollars a month is the wages of a common teamster or farm laborer of average skill; and no one, however poor, would work under twenty dollars. A boy of sixteen gets thirteen dollars and his board, and, according to Eastern idea of work and wages, earns about eight. Labor, skilled and unskilled, is the great want of this State. Can it be that there is any suffering from want in the great cities? Or is it that poor people will rather starve or steal than emigrate to regions where, while provisions are cheap, labor is paid at the very highest price?—Domestic service, sewing, and laundry-work for women, and for men everything that strong arms can do, goes a-begging here, spite of the offer of excellent pay. Whoever does perform service at these high prices, feels that he confers a favor on his employer, and pockets his money with supreme coolness. Carpenters and blacksmiths are as scarce as four-leaved clovers; the shoe and boot maker is a most important person; and where so many barrels are needed for flour, pork, sorghum syrup, and, alas! whisky, the cooper is king. The best beef is six cents a pound; eggs ten cents a dozen even now, in mid-winter, and this is about double the summer price. Flour is just now six dollars—rather high, because the roads make it scarce. But other products of the mill are cheap enough to make up for that.

Save the Fodder.

It is now certain that the grass crop has been below the average, and therefore it follows that the considerate farmer must carefully save and preserve all the material possible, that will go towards helping winter the stock. This is the season for practicing economy in the harvesting line.—Save every pound of hay—see that the grass is cut clean and the hay raked clean. A slack mower or a slovenly raker will usually leave as much grass or hay behind him, and lost, as his daily wages amount to. Such hands shouldn't be tolerated in the field this season at any rate. A careful man, even if he asks a half a dollar more a day, is the cheapest in the end. There are the low waste grounds which will yield quite a an abundance of wild grasses, &c., and the weeds and brakes, if cut while green and tender, or before being in blossom, will make a change of fodder quite palatable to the stock. All these little odds and ends, the stalks, vines, haulms, weeds, ferns, &c., should be carefully husbanded, and our word for it, next winter will prove the act to have been a wise one.

Ventilate your Barns.

Every barn should have a ventilator on top; and if any farmer's barn is not thus provided—as but few are—and circumstances will allow, we recommend that one be put on. Any smart carpenter can make and put it on in a day or two, and the better curing of your gathered crops will well repay all the expense. If your barn is roughly built and full of cracks, it will, of course, not be so essential that it should have a ventilator; but even then, especially in case your barn is to be crowded to the ridge, it is much better that it be so furnished with the means of getting rid of the heated air and steam which must otherwise accumulate in the upper part of the barn. By having a ventilator on the top, a constant upward current is established, which materially aids in the process of curing.

Tappahannock White Wheat.

Some days ago Willard Hodges, Esq., of Brighton, in this county, left at the *Rural* office, several heads of the above named variety of wheat grown from seed obtained (through Patent Office) from Maryland. It was sown Sept. 10, and harvested on the 2d inst. It grew by the side of Dickinson wheat (as early a variety of white wheat as we have in this region,) which was still green and apparently would not ripen in a week or ten days. The label on the package of seed wheat said—"It is earlier than the Blue Stem, and makes first quality of flour." The berry is plump and fine, but the heads short. It may prove the long sought desideratum for this region,—time and experimenting will decide. Mr. Hodges has no seed for sale, but thinks very favorably of the variety, and proposes continuing its culture.—*Rural New Yorker.*

During the year past we have received from the Agricultural Department at Washington and distributed several bags of this wheat in Wis. Will not those parties who were favored with a trial of it send in their report?

STOCK REGISTER.

Consumption in Sheep.

MR. EDITOR:—One of my neighbors wished me to write and ask through the *Farmer* the cause and remedy for the cough that sheep have. He says they are taken and if not cured will die the next year.

OVIS.

ANSWER.—The query of "Ovis" is so general and indefinite in character that we may not hit the case at all in our reply; for there are so many kinds of cough that no single description or class of remedies could be appropriate to all.

The constitution of sheep and many of its diseases are so much like those of the horse and of man, that no physician could long be in doubt in any given case as to the method to be pursued in the treatment of those diseases wherein they agree.

A cough in the sheep, as in man, may be occasioned by an acute inflamation of the lungs, or chronic inflamation. The former, when it has its free course, is characterized by fever, with hard, quick pulse, disinclination for food, cessation of rumination, unwillingness to move, slight heaving of the the flanks, a frequent and painful cough, becoming more and more painful and difficult, oppressed respiration, and finally a discharge from the nostrils, succeeded by giddiness, stupor, delirium and death. It is usually induced by sudden changes of weather or by a cold consequent upon careless washing, shearing at an unfavorable time, driving hard, &c. Remedies, quite like those used for man.

Chronic inflamation of the lungs results after a time in what is known in man as consumption, and is beyond the reach of any remedies of which we have any knowledge. As "Ovis" remarks, it would be very likely to prove fatal within one year. The cough is a usual symptom.

In the early stages, putting the animal upon dry nourishing pasture, giving it access to salt, and careful protection during severe changes of weather and storm may be of service in retarding, if not in curing the disease. Youatt recommends the administration of dydriodate of potash in doses of three grains, morning and night, gradually increasing the dose to twelve grains, and in case a cure seems out of the question, that the animal be sent to the butcher while it will sell!

Summer Care of Sheep.

This is a general subject of much importance, and involving various particulars, which are so concisely and ably presented by Dr. Randall, author of "Practical Sheep Husbandry," in an article written for the *Rural New Yorker*, that we cannot do better than to quote therefrom such portions as are appropriate to the present season:

WATER IN PASTURES.

We have already insisted that this is a point of the highest importance—that it ought to be regarded as indispensable—in the case of ewes suckling lambs; and there is no doubt that it is vastly better for all sheep.

SHADE IN PASTURES.

This, like the preceding, is very important for nursing ewes, and very advantageous

for all other sheep. In a bare field, with no shade whatever but an ordinary rail fence, it "would pay" to construct artificial shades for ewes and lambs. It might be done cheaply near forests with the common pole shed, letting one end of the cover poles rest on the ground.

Before this is rotted away, suitable clumps of well protected trees, set out on knolls, would be large enough to afford the requisite shade.

SALT IN SUMMER.

Sheep should be regularly salted as much as they will eat, once or twice a week throughout the summer, or else have salt constantly accessible to them. The latter would be decidedly best, did it not, during the busy periods of summer, tempt the flock master to neglect seeing his sheep. They ought to be carefully looked over at least twice each week, and counted as often, if pastured out of sight of the farm house, or in exposed situations. Besides, sheep are kept much tamer if frequently called about the shepherd by their desire to obtain salt.

SULPHUR, ALUM, ETC.

Some people mix these things and other drugs with salt, "to keep the sheep healthy." Carrying coals to New Castle, salt to Dysart, or performing any other work of *utter* supererogation, is not, in our opinion, more absurd than "doctoring" an animal in perfect health, and exposed to no unhealthy influences, in order to guard against some special disease, or against diseases in general. And the misfortune is that the substances administered are not, in the stomach of a perfectly healthy animal, merely harmless. All the effect they produce is just so far a departure from the useful and natural, and consequently the healthiest, discharge of the functions so affected. Instead of tending, therefore, to the prevention of disease, they rather invite it. There is not a greater fallacy in the whole range of popular errors than the one that, because a certain drug or substance is a good remedy for a particular disease, its administration *in health* will necessarily act as a preventive of that disease. These *malopathic* practitioners remind us of the "schoolma'm" who once a day *spanked* the school all round—the naughty children because they misbehaved, the others, to keep them from misbehaving!

Where the exciting causes of disease are at work, there is a legitimate mode of prevention. It consists in removing the sheep, or in removing or neutralizing those causes. If land is too wet, for example, for sheep, it is "sound practice" to drain it. If we could devise any way to prevent the sheep gad-fly from laying its eggs in the nostrils of the animal, it might be desirable to do so. If proper food—that is, a portion of green food in winter—will prevent colic in sheep, we should give it to them. If tar or fish oil near a wound will repel flies from that wound, it is prudent to put them on parts of sheep very particularly subjected to wounds. All this is simply proper management. It does not come in the category of *drugging* and *dosing* healthy sheep.

A healthy sheep requires *nothing* internally but proper food, drink and salt. Salt is a condiment as much adapted to its instinctive appetite and desires as is its food. Nature, therefore, proclaims *its* usefulness to sheep, even in health; but she makes no such proclamation in respect to any other substance, which is included in the list of preventive medicines.

Profits of Wool Growing.

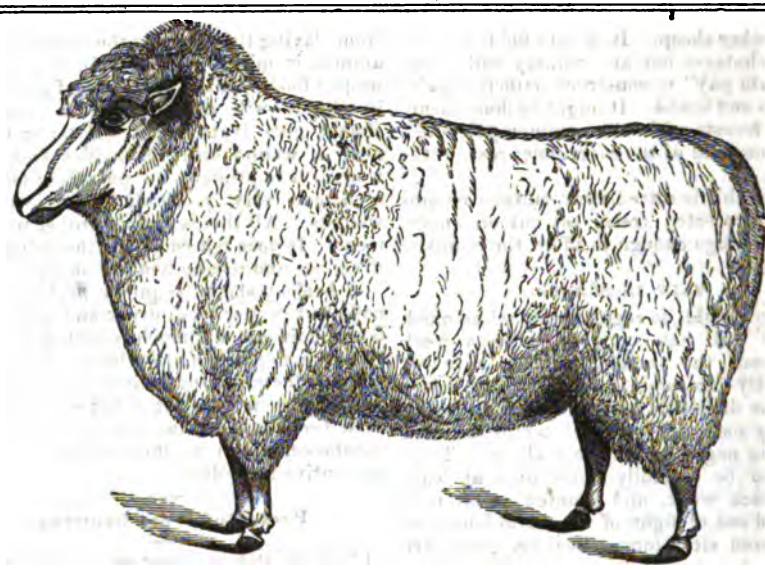
I have just sold one thousand pounds of wool for $1000. "Does wool growing pay?"

ELI SHILSON, Oshkosh, Wis.

Just the price that we predicted three years ago, when the war had fairly commenced. Some very sound men (wool men too) thought we were crazy and for our sake regretted the rash prophecy. If a large proportion of our readers had then taken our urgent advice and turned their grain-growing energies into the production of wool, there would now have been many more farmers asking with exultant emphasis, "Does wool-growing pay?"

REMEMBER THE STATE FAIR, and prepare to make good exhibition of your stock. During the past three years much improvement has been made in stock-growing, in all its departments, in Wisconsin, and we shall be sadly disappointed if we do not see, at Janesville, in September next, the finest show of cattle, horses, sheep and swine ever yet made in this State.

BEDDING COWS WITH SAND.—At the State Alms House, Mass., the manager of the farm beds his cows regularly with sand, which he considers superior to any other substance for that purpose. It is warm, easy to lie upon, prevents the cows from slipping when reaching for food, is an excellent absorbent of liquids, easily shoveled in and out, a superior divisor of droppings, and is an excellent substance to supply to cold lands. For these reasons he likes sand for bedding.



Some of the British Breeds of Sheep.

NUMBER V.—THE ROMNEY MARSH.

Many years ago there was found on Romney Marsh a race of sheep characterized by thickness and length of head, a broad forehead, with a tuft of wool upon it, a long, thick neck, and flat-sided carcass, sharp chine, wide loins, narrow breast, a large belly, a full, broad thigh, thick legs, a thick, long, coarse tail, and by long but not fine wool. They are described by the older writers as being remarkably hardy, enduring the hardest winter with no other food than hay; slow of maturity, three years being necessary to make wethers from 80 to 96 pounds weight.

For a long time their breed was kept quite pure by the resistance of the shepherds of Romney to the introduction of any other breed. At length, however, some of the breeds which possessed the more desirable qualities of the Romney Marsh, with other qualities which it had not, were introduced, and at present it is without popularity, except with a few who refuse to recognize the superiority of the new Leicester, and is doomed eventually to be lost entirely in that superior race; its hardiness and adaptation to the bleak, rough marshes to which it was native being all there is now to recommend it.

To Remove a Film from the Eyes of Horses and Cattle.

MR. EDITOR:— * * * I have a receipt for removing films from the eyes of cattle or horses, which I wish to make known to the readers of the FARMER, as many men are in the habit of spitting tobacco juice into their eyes, and using many other harsh medicines. My remedy is simply this: put hen's oil into their eyes, every day, till the film is removed. I have never known it to fail when the film was caused by getting something into the eye. I have seen it tried where the eye was entirely white, and in a few days the eye became as well as ever, the film being entirely removed, and the eye healed. Respectfully yours,

WILLIAM MARSH.

CLYMER, April 18, 1864.

REMARKS.—We have been in the habit of blowing powdered ginger into the eye of the horse, in cases of film, and have usually found it successful. If the oil is equally efficacious, it should be preferred to the ginger, as it would probably cause less pain, unless it requires to be used several times. One application of the ginger (a goose-quill full, well blown in) is usually sufficient.

EDITOR.

What Horses we Need.

The agricultural editor of the Cincinnati *Gazette* is furnishing that paper with a series of articles upon the horse. In regard to the kind of horses needed in the United States, he says:

"The United States is pre-eminent for its trotters. But there is no breed of trotters except the Morgans, and the many names which have signalized the trotting courses belong to the common stock of the country. They are accidental trotters, and their qualities developed by superior training. The moral sentiment of the people is so hostile to the gambling of the race course, that running became unpopular. The carriage and buggy having taken the place of riding on horseback, trotting was a useful gait, and trotting races have been tolerated on account of it. Hence our sports of the turf are shown in these, and the training skill of sportsmen directed to trotting horses. We need skilful breeders to establish a trotting stock. It is true that the Morgans have much to claim our admiration. For general usefulness they have no superiors. Their fast gait, medium size, endurance and excellent disposition, point them out as the best for family purposes. But still, the more showy carriage horse, such as Consternation, Messenger, Hamiltonian, Highlanders, etc., will often command a more ready sale, and the breeding of these should command greater attention than they do. Our fault is too much mixing, and it is too habitually setting at defiance the adaptation of the points of the mare and stallion to each other. This evil is facilitated by the numerous classes of horses that are here. Our importations embrace every valuable kind for every valuable purpose, and their numerous crosses on the common stock have given a diversity of forms and blood that make breeding for especial purposes, such as for the carriage and buggy, no easy matter. The forms and blood of our stallions generally have so little to do with each other, that a Highlander begets a Diomede colt, and a Morgan shows undersized offspring without the qualities which are characteristic of the breed. Even good diverse qualities neutralize each other, and the progeny exhibits either none of the qualities of the parents, or so much modified as to be of little value.

For farming purposes, heavy horses are not needed. A good walk in the plow is the most useful gait, for experiments show that the draft of the plow is not increased by speed; hence it may be run at the same depth at three miles an hour, as at two miles without any additional strength from the horse. A horse, therefore, that will walk three miles in an hour in the plow, is worth a third more than one that walks but two.

A farmer, too, wants a horse that will trot his buggy eight miles an hour; and fast walking and trotting, with endurance, easy keep and kind dispositions, are the qualities that all want. A slow-poking plow horse is not desirable for any purpose, save when the farmer is in new ground with the plow, and oxen are better there. Our general breeding should look to the higher qualities —to fast gaits, gentle disposition, nervous energy and *intelligence;* for there is a great difference in the minds of horses as in the human race.

The two-horse Yankee wagon has superseded the four-horse wagon, because a quick trip to town, with thirty bushels of wheat drawn by two horses, is much better than a slow one of fifty bushels with four horses; and speed, now-a-days is desirable, even of a Sunday, when the wagon conveys the family to church. This is a fast age in all things, and the slow, poking, dull, stupid horse is wanted nowhere.

That Government will need many more horses than it has in times past, is pretty certain. For cavalry, the good qualities I have particularized, are demanded. Whether to reconnoitre or to cover a retreat, or to pursue a retreating enemy, or to surprise guerrilla parties—for all the purposes of war, a heavy cavalry horse is not wanted. Greater strength is needed for the artillery service, but even here speed, too, is demanded, and the large, showy and fast trotting horse of the carriage, is more desirable than the slower draft stock.

Even in the dray a good walk is important, although weight of body is absolutely necessary to resist by its momentum the jarring arising from the uneven surfaces of city pavements."

SADDLE HORSES.—How few saddle horses, worthy to be styled such, do we find in this country. The war, by its large demand for cavalry horses, may have effected some change in this respect, but yet we very much doubt whether one farmer in a hundred has given any attention to the principles which must be observed in order to insure the desired end. Horse-back riding is a most agreeable and healthful exercise, and it would be much better if the American people would indulge in it more. Furthermore, the indications are that we are to be a warlike people for many years to come, and patriotism should prompt us to give some attention to horsemanship on this account also.

Stifle Out—Luxation of the Patella.

BY GEO. H. DADD, V. S.

The *Patella of* the horse, "Stifle-Bone" as it is sometimes called, corresponds to the knee-pan of a man, and performs the same office. The portion of the bone is at the lower part of the *femur*, and the upper part of the *tibia*. The bone itself is kept in position by strong ligaments, and in consequence of the presence of a large prominence or condyle on the inner and lower part of the femur. Dislocation inwardly very rarely, if ever takes place; the bone is, therefore, in case of luxation—*stifle-out*—found on the outer and lower part of the thigh.

An accident of the above-named character is usually accompanied with much pain, and it is with great difficulty that the animal can be urged to leave the stall; the limb is rigid, and it is a matter of impossibility to get it off the floor, for the simple reason that the stifle is thrown on its pully like articulatory surface, and the action of the joint is suspended.

The liability to *stifle out, or luxation of the patella*, is not so great as some persons would suppose; I have seen but very few cases of the kind. Many times have I been requested to visit horses said to have their stifle out, and on making examination have found them subjects of cramps, or spasms, of the flexors; others have turned out to be cases of foot lameness, nail in foot, and even fracture of the pelvis.

So that the reader may not mistake a case of this character, I would inform him that the stifle is never out, unless the bone can be distinctly felt and seen, per tumor, on the outer and lower part of the thigh bone, at the same time the animal when urged to move does not *raise* the limb but *drags* it after him; this accident can easily be distinguished from a case of spasms or cramps, from the fact that when cramp sets in, the limb becomes, as it were, riveted to the floor; this condition, however, is peculiar to cramp of the flexors, or those muscles which are concerned in bending the affected limb.

Means of Reducing Dislocation of the Patella or Stifle.—The means of reducing the dislocation of the patella are very simple. The patella (stifle-bone,) as I have already intimated, will be found on the outer side of the stifle-joint. The person who proposes to accomplish the reduction must with his right (supposing the dislocation to be on the *near* or left limb) grasp the leg just above the hock, and gradually raise it upward and forward; the left hand should, at the same time, embrace the stifle-bone, then by joint actions of pressing the bone inwards, raising and extending the limb, the stifle-bone slips into its proper position, and the reduction is then effected. It will be observed that at the moment when the stifle-bone slips into its proper position, a snapping sound is heard, like that when the head of one of the shaft-bones is made to slip into its socket. As a precautionary measure, it is highly necessary that assistants should support the animal, lest he fall and injure both himself and the operator.

According to the above rule, it is a very easy matter to reduce a recent dislocation; and such requires very little after treatment, except rest, and the application, occasionally, of cold water.

When the stifle-bone has remained unreduced for many hours, it may be inferred that the ligaments, tendons, &c., have been so long stretched or distended that they will not immediately contract, so that unless we adopt measures to prevent it, a re-dislocation is very apt to occur. To guard against this, a person has to be stationed so as to keep a hand on the stifle-bone, at the same time the region of the stifle must be constantly bathed with some astringent. A solution of alum will answer; sometimes, however, it is necessary to shave the hair from the part and apply a strengthening plaster, composed of pitch, tar and rosin—equal parts; these are to be melted in a tin or iron vessel, and when the mixture is sufficiently cool it may be spread on the region of the stifle by means of a knife or spatula; this is to be covered with a thin layer of wool or cotton batting.

In days of yore it was customary to apply the stifle-shoe, but I think that the practice is injudicious—highly injurious—and at the present period is scarcely, if ever, advocated by men who do their own thinking and practice in accordance with the principles of common sense. Many valuable horses have been ruined by the practice formerly pursued of forcibly (by means of a cart-rope) dragging the limb forwards and effecting a reduction without any regard to the mechanical action of the parts.—*Valley Farmer.*

Artificial Hoofs for Horses.

It is impossible to calculate the various useful purposes to which gutta percha may be applied. One of the most ingenious applications recently made of this valuable substance, is that of making artificial hoofs for horses' feet. Many ingenious devices have been resorted to, to attain this result, but the adoption of gutta percha will, doubtless, supersede all others, as soon as

its efficacy becomes recognized. What is required by the veterinary surgeon, is a substance possessing the consistency of horn, to retain the nails of the shoe; that will readily soften by heat, so as to mold itself to the required form; that it may be indissoluble in water; that the horse's hoof is generally in contact with moisture; and lastly, that it be capable of uniting perfectly with the hoof. No known substance possesses all these qualities, except gutta percha; for the purpose under consideration, it is prepared by being cut into fragments the size of a nut, and softened in hot water; the pieces are then mixed with half their weight of powdered sal ammoniac, and melted together in a tinned saucepan over a gentle fire, keeping the mass stirred; the mixture should assume a chocolate color. When required for use, it should be melted in a glue-pot; the surface of the hoof must be scraped clean, and the gutta percha applied as required. The application may be facilitated by the use of a glazier's knife warmed, by which also the surface of the artificial hoof may be smoothed and polished.—*English paper.*

Spanish Merinoes—A Good Clip of Wool.

EDITOR FARMER:—As I have never contributed anything to your columns, I will endeavor to give you something of my views about the Spanish Merino sheep. There is a great deal said about large fleeces this spring yielding from 16 lbs. to 26 lbs, in different parts of the State. Now we can select certain sheep and keep them in a very high condition and they will yield a much larger amount than the common average of the flock. I purchased, last February, 81 full blood Spanish Merino sheep from Livingston county, New York. They were a long time on the way and were quite thin in flesh when they arrived here. I had 66 ewes and 15 bucks, (sold three before shearing,) gave them no extra keeping, and 78 sheep, 12 bucks and 66 ewes averaged a little over 7 lbs. of washed wool to the head. If I had kept them on my farm during the year, I think they would have yielded a larger amount of wool. I have 15 lambs from the celebrated Sweep-Stake buck, of Middlebury, Vermont. Ewes were taken there last fall, from New York.

Rutland, Dane Co., June 19, 1864.

S. W. GRAVES.

THE POULTERER.

Gapes in the Hen.

MR. EDITOR:—We wish to know if any one has ever heard of a disease of this sort in the hen: At the first she will gape continually, and on examining we find her ears, comb, and in fact the whole head is swollen and looks of a very dark color, and there is a large bunch in her throat. She makes a great noise breathing. Some call it the croup. Please tell us the cause and the cure, &c.

I am continually laboring for the Farmer.

S. J. FORD.

Nekimi, April 18, 1864.

The disease described is probably that known as the "gapes," or inflamation of the windpipe—a very common and troublesome complaint. In answer to our correspondent we publish the following, taken from Browne's *American Poultry Yard.*

GAPES, OR INFLAMATION OF THE WINDPIPE.

This is a disease to which all our domestic gallinaceous birds are subject, and which often occasions great mortality among them. Wet, ill-feeding, and ill-ventilated fowl house confinement, or a spot or plot of ground tenanted year after year by fowls, without attention to cleanliness, to renovation of the soil, and a proper allowance of gravel, ashes, fresh vegetables, &c., are the proximate or remote causes of this, as well as many other complaints of our domestic fowls. At the same time, let it be borne in mind that the "gapes" is an epidemic disease.

In the first instance, it appears to arise from a croupy or catarrhal affection, which is indicated by running at the notrils, watery eyes, alteration of voice, and loss of appetite and spirits. If the trachea, or windpipe, be examined, it will be found replete with narrow worms, about half an inch in length, imbedded in slimy mucus. This singular worm consists of a long and short body united together; the long one is the female, the short one the male, each, were it not that they are permanently united together, being an animal distinct and perfect itself.

Whether these parasitic worms are the cause or consequence of the disease, it is not easy to say, nor do we know how they become introduced into the trachea; this, however, seems certain, that their removal is requisite to give the feathered patient a

chance of recovery. This can be done by means of a feather, neatly trimmed, which is to be introduced in o the windpipe and turned round once or twice and then drawn out; it will dislodge the worms and bring back many of them adhering to it with the slime. This plan requires great dexterity and some knowledge of the anatomy of the parts; a slow unskillful operator may kill the already half-suffocated bird, instead of curing it. Another mode of destroying these worms, is, by putting the birds into a box, and making them inhale the fumes of tobacco thrown into it through the stalk of a tobacco pipe. Some recommend the forcing of tobacco smoke down the bird's throat, and others that the mouth be crammed with snuff.

Martin, in his "Farmer's Library," recommends the application of a grain of calomel, made up with bread into a pill, or two or three grains of Plummer's pill, (pil. hydr. submur. co., London Pharmacopœia,) after which let flower of sulphur be administered, with a little ginger, in pultaceous food composed of barley meal. Indian meal will do as well. In the meantime let the bird be kept dry, warm shed or room, apart from the rest of the fowls, as it is believed that the disease is infectious. Let the mouth and beak be washed with a weak solution of chloride of lime.

THE BEE-KEEPER.

Bee Keepers' Convention.

Mr. Editor:—Allow me to add a few words to your brief report of this Convention, held on the 16th of June last, at which I made but few notes, supposing the Secretary would furnish a full report of the proceedings. And I would first say, that you are mistaken in saying that Messrs. B. and H. "were the only agents of patent hives present," as I personally know that the gentleman who elucidated more points of practical and scientific interest in bee-keeping than all the Convention beside, is an owner, agent, and able representative of the Langstroth Hive; and if he did not "puff his own wares," I presume it was from the feeling that their merits were too well known to require lauding at his hands.

In truth, except the occasional "push" of self-interest, little time was spent in discussing the merits of the four or five different hives on exhibition; and here let me say to you, *privately*, that those who talk loudest on this subject generally know the least.

Now for some of the points discussed. It was the almost unanimous expression, that frame hives, only, were worthy of regard; indeed, the first step toward a fundamental reform in bee keeping.

Mr. Young, Chairman, keeping a large number of stocks, preferred "artificial swarming, every time," and has been very successful, even with the common box hive. He thought the profit and pleasure of keeping bees lay in controlling and directing them, as other farm stock; he had turned his attention to *increase*, more especially, but thought he had gone too far with it.

Mr. Sharp finds that the greatest value of artificial swarming is in the certainty of supplying a queen to every stock, which is not the case with natural swarms; also, that it can be done earlier in the season than natural swarming takes place. He gave an instance of a stock that had wintered without a queen until June, before giving out. Certain appearances indicate the absence of a queen, which the experienced readily detect. Mr. S. described his mode of artificial swarming on the nucleus plan—in theory and practice very like the details given by Langstroth.

The loss of stocks the past winter was freely discussed, and various reasons assigned, the principal of which was, the long term of excessive cold, preventing access to their stores; also, from want of ventilation, by accumulation of ice, producing suffocation, or a diseased condition, which they could not survive. But the opinion was strongly expressed, that stocks should be housed, as the only safe and economical mode of wintering.

It was agreed to hold a winter meeting, in this city, subject to the call of the President.

The interest manifested by those in attendance at this first meeting of bee-keepers in this State, is a guarantee that the future meetings will be looked forward to with increased interest. J. C. Plumb.

Madison, Wis.

Mr. Shaw on Patent Hives Again.

EDITOR FARMER:—In the January No. of the FARMER I gave some of my experience, with the present style of movable frame bee-hives; hoping also to gain information from its columns that would assist me in my disconsolate wandering, not to find a self-running institution, but one that with good, common care will reward its owner fairly.

I give the merit and demerit as I observe and understand it. If those of your readers that are interested in this department understand me, I am satisfied in being brief in my part of the discussion. Many thanks for the movable comb principle (if this is the proper term); but when Langstroth added the perpendicular sides to the already invented guide, he, I think, made a mistake which experience alone will correct. Although good in theory, in practice it is often injurious; more so in weak stocks than in strong ones.

The upright part of the frames are about 5-16 of an inch from the side of the hive; theoretically to enable the bees to traverse the sides of the hive and keep it clean; but their habits are *not* to travel around the edge of their combs, as we can see in all abodes selected by themselves. Consequently the space between the frames and the side of the hive is not properly cared for, and will be studded with webs and cocoons as often as we can properly take them out, except in strong, heavy stocks in which the bees are crowded out the side of the frames.

One case to illustrate. Mr. B., a neighbor of mine, who has had the management of bees some forty years, thought, like many others, that the movable frames were what he wanted; but being a cautious old gentlemen he would satisfy himself with *one* before further investing. He declared to me that while one side was being filled with comb, &c., the other (a hive with a division board) was being filled with spiders' webs, from which he removed more worms and cocoons than from eight others of the old style. With his best management, his patient but sensitive little workers insisted upon hanging six combs on five frames. I well know that all have not the same tact or facility for handling, and a very large majority of the people prefer to have as little to do with them as possible. Yet they would like to have their tables supplied with the delicious sweet. To such I would say that I have now under my observation a hive (it is no patent right) that commends itself to my feeble senses, as it approximates the abodes bees select for themselves, more nearly than any I ever saw out of the old style of hive. The comb removing principle is not overlooked; the near and uninterrupted access to the supers is a superior feature; the extension principle is another prominent feature by which one extended colony will do much towards supplying one table with honey, with but with little or no trouble to its owner, needing no shower baths of sweetened water, puffing of narcotic opiates, trimming, pairing off, or twisting of combs, or drawing of frames; no cumbersome supers and honey board to move before we can get at the stock department—all of which are inconvenient to those who have no time to move unnecessarily. Patent, costly hives may do for those who keep bees for amusement, but not for the farmers.

JOHN A. SHAW.

DARTFORD, Feb. 19, 1864.

THE HORTICULTURIST.

A. G. HANFORD, : CORRESPONDING EDITOR.

Horticultural Dogmatism.

I will not condemn a grape because it does not do well with me.—Dr. JOHN A. WARDER, Cincinnati.

There is much good sense in this manly, candid utterance of Dr. Warder. We have never supposed that modesty was an element altogether wanting in the members of the hort cultural profession, and yet there is so much of unbecoming dogmatism in some of them that the words above quoted, of their own accord, arranged themselves the moment they came to our notice in the form of a text and challenged us for a sermon on the fault they imply.

If Horticulture were a complete science,

with its principles and facts established beyond all possibility of a question; if the circumstances under which the operation of the laws of vegetable growth and development were perfectly uniform in different parts of the world and absolutely exceptionless; and if the conditions under which experiments are made were also identical without regard to time, place or experimentor, then we might pardon the oft repeated oracular statements, "This is invaluable." "That is good for nothing." But inasmuch as all the circumstances, and conditions above named are exceedingly variable, wisdom would dictate that they who report for the public on matters of general interest should express themselves with some degree of modest caution.

We do not affirm that horticulturists as a class are very much more obnoxious to the charge of dogmatism than are some other classes—simply that they are somewhat, if not seriously at fault in this respect and would do well to profit by the quiet, incidental reproof of the worthy leader whom we have quoted at the head of this article. There is always some danger that men who devote themselves to a single branch of a more enlarged and comprehensive business, and one concerning which the knowledge of the public in general is known and acknowledged to be very limited, should come to realize their advantage and to assume to have, themselves, more knowledge than they really possess; and yet it is only by subdivision of labor and study that the world is enabled to make real progress. We do not find fault therefore, we only point out the danger and give the warning. Hobby-riding is unworthy the Horticulturist. If any are mounted with the unworthy object in view of foisting this pear, that strawbery, grape, or aught else upon an ignorant craving, and gullable public, without the most absolute and unfaltering conviction that it is really pre-eminently worthy of adoption, let them get off again and repent them of their mean intention. Such men are nothing more nor less than narrow conceited, selfish and unscrupulous sharpers, utterly unworthy of a place in the noble profession they have so profaned.

On Wine Making.

John E. Mottier, a well-known vintner, of Cincinnati, Ohio, writes as follows to the *Horticulturist:*

In order to make good wine, it is necessary to have a good cellar, clean casks, press, etc. First of all, have your grapes well ripened; gather them in dry weather, and pick out carefully all the unripe berries, and all the dried and damaged ones; then mash and grind them with a mill, if you have a proper mill for the purpose. Be careful not to set your mill so close as to mash the seed, for they will give a bad taste to the wine. If you wish to have wine of a rose color, let the grape remain in a large tub a few hours, before pressing. The longer time you leave the grapes before pressing, after they are mashed, the more color the wine will have. For pressing the grapes, any press will answer, provided it is kept clean and sweet.

After you have collected the must in a clean tub from the press, have it transferred into the cask in the cellar. Fill the cask within ten inches of the bung; then place one end of a siphon, made for that purpose, in the bung, and fix it air tight; the other end must be placed in a bucket containing cold water. The gas then passes off from the cask without the air coming in contact with the wine, which would destroy that fine grape flavor, which makes our Catawba so celebrated.

When properly made, the must will undergo fermentation. Keep the end of the siphon that is in the water fully four inches deep, so as to exclude the air from the wine. When it has fermented, which will be in fifteen days, fill the cask with the same kind of wine, and bung it loosely for one week; then make it tight. Nothing more is needed till it is clear, which, if all is right, will be in January or February next. Then, if perfectly clear, rack it off into another cask, and bung it up tightly till wanted. If the wine remains in the cask till fall—about November—it will improve by racking it again. Be sure to always have sweet, clean casks. Do not burn too much brimstone in the cask. I have seen much wine injured by excessive use of brimstone—generally by new beginners. For my part, I make little use of it.

You can make different qualities of wine with the same grape, by separating the different runs of the same pressing. The first run is the finest, if you want to make use of it the first season; but it will not keep long without losing its fine qualities.

To make good, sound wine, that will improve by age, the plan is to mix all up together. The very last run will make it rough, but it will have better body and better flavor when two or three years old and will improve for a number of years. The first run will not be good after two or three years.

I have fully tested the different ways of making and keeping wine these last twenty-five years.

Thinning of Fruits.

One lesson which experience has taught us, is the importance of thinning the fruit, especially of apples and pears. This branch of pomology has received comparatively but little attention. There is a limit to the capacity of all created things. If you tax the energies of an animal too severely for a long time, the result will be premature age and decay. Subject any vegetable or mineral substance to too great pressure and you destroy its powers of cohesion. So if you permit a tree to bear beyond its strength, you injure its fruit, retard its growth, and shorten its life. All have observed that superfecundity one year, produces barrenness the next. Hence we hear among our farmers and gardeners what they term the bearing year. They invariably designate the Baldwin apple as a tree that bears on alternate years. But is not the cause of this alternation found in the fact that the abundant crop of the bearing year exhausts the energies of the tree, and absorbs the pabulum so as not to leave sufficient aliment for the formation of fruit spurs the second year? Many varieties have a tendency to overbearing, especially those which produce their fruit in clusters. Nature herself teaches us the remedy for this evil, and a superabundance of blossoms is generally followed by a profuse falling of the embryo fruit.—When and where this dropping is not sufficient to prevent overbearing, we should resort to the process of relieving the tree of a portion of its fruit.

The organism which carries on healthful development, in order to repeat its cycle of functions from year to year, cannot be overworked without time for recuperation.—Whatever of nutrition goes to the support of useless branches, or a redundancy of fruit, abstracts that strength from the tree which would otherwise be appropriated to the perfection of the crop, and the development of the spurs which would bear fruit the next year. One of the best cultivators in the vicinity of Boston, has reduced this theory to practice, with the happiest results, in the culture of the pear. His system allows no useless wood, nor more fruit than the tree can properly sustain. Some have doubted whether this practice can be made remunerative, except in its application to the finer fruits. But another cultivator who raises an annual crop of the best apples, assures us that the secret of his success is the thinning of the fruit, and he has no doubt of the economy of the practice. No good farmer doubts the necessity of thinning his root crops, no *vignernon* the propriety of thinning his grapes. Analogy of cultivation, therefore, justifies the practice, and I entertain no question of its great importance.

Light, air and moisture are essential to the production of vegetable products, and especially of fine fruits. Who has not observed that the best specimens of fruits on a tree are ordinarily those which are most exposed to these elements? Who does not select the full-sized ruddy fruit, which has had free communion with light, heat and air in preference to the half-fed specimen which has shared its own proper nourishment with five or six crowded rivals on the same spur?

An experienced English cultivator says: "The bending of branches of trees by an overcrop of fruit, is most injurious, for the pores of the woody stalk are strained on the one side of the bend, and compressed on the other, hence the vessels through which the requisite nourishment flows, being partially shut up, the growth of the fruit is retarded in proportion to the stalk." This is illustrated in the overbearing of some varieties, which, from a redundancy of fruit without the process of early and thorough thinning, seldom produce good specimens and in a few years become stinted and unhealthy trees. The overbearing of a tree is as much a tax upon its energies and constitution, as the exhaustion of a field by excessive crops of the same kind, year after year, without a return of nutritive materials. Inexhaustible fertility is a chimera of the imagination. Sooner or later, the richest soils will require restoration of what has been abstracted by vegetation. However fertile at first, the constant overcropping of the soil is a reduction of the elements on which health and fruitfulness depend. This great principle of sustenance and reciprocal relation runs through the whole mass of life, of mind and of matter.

Intimately connected with this process of thinning, is the time when the work should be executed. It should not be done before we can distinguish the choicest specimens

in a cluster of fruit, nor delayed so long as to waste the energies of the tree. This practice, judiciously followed, will supercede the necessity of staying up the branches, will prevent injury to the tree by breaking, and will prove decidedly economical.

Associated with the thinning of fruits is the expediency of gathering a part of the crop as soon as it approaches maturity.—The remaining specimens will thereby be much increased in size and excellence. The fruit of a tree does not all come to maturity at the same time, hence the successful gathering will turn the crop to the highest practical account; and will keep the productive energies of the tree in a healthful and profitable condition."—*Marshall P. Wilder.*

Keeping Grapes—Recipes.

Dining with a friend recently, we had the unusual luxury of a desert of Catawba and Isabella grapes. Their mode of preservation being the theme, we learned that they were picked when perfectly dry and ripe, and packed carefully in bunches, in a box, between layers of cotton, and as much as possible excluded from the air and light. More recently a gentleman from Pennsylvania tells us that he has seen them successfully preserved till spring, as follows: "Into the bottom of a small keg or nail-cask put a layer of grape leaves fresh from the vines. On these carefully place a layer of sound, ripe, dry grapes, then leaves and grapes in alternate layers, till the keg is full. Head up the keg and bury it in some well drained ground, below the depth of the frost." Like other things excluded from the light and air, they will change rapidly on exposure, and hence when a keg is opened and they are found good, use them freely.—*Ex.*

Another.—We are in the habit of keeping grapes for common use during the winter in the following manner: Take clean, small boxes, pick off the bunches of grapes carefully, and pack them in dry grape leaves. Keep the boxes in a dry, cool place, being careful to not let them freeze. We generally have grapes till May.

JOSEPH COPE.

Another.—Cut the bunches carefully off the vines, dip the stem where cut into melted wax, then wrap with paper or cloth. Put a layer of cotton on the bottom of your box, then a layer of grapes, and a layer of cotton, and so on. Set the box where the grapes will not freeze and they may be kept good till spring.

Yet Another.—The French preserve grapes the year round by coating the clusters with lime. The bunches are picked just before they are thoroughly ripe, and dipped in lime water of the consistency of thin cream. They are then hung on wires, and when dry are dipped the second time, and them hung up to remain. The lime coating keeps out the air and checks any tendency to decay. When wanted for the table, dip the clusters into warm water to remove the lime.

How to Kill Gophers.

MR. HOYT:—I have seen, in one of your late numbers, a complaint against pocket gophers destroying apple trees. I had many valuable trees destroyed by them, but I have overcome this pest. I bought crystallized strychnine, and poisoned carrots. A quantity half the size of a wheat grain, inserted into a piece of carrot, is sufficient for a gopher. I find their main passage, where they have worked last, place the carrot in, and replace the earth carefully, without stopping their passage. With two days' labor, a man can rid them out of a good sized farm, with little cost. Try it, you who are troubled with them.

Truly yours, PETER REISER.

LANSING, IOWA, July, 1864.

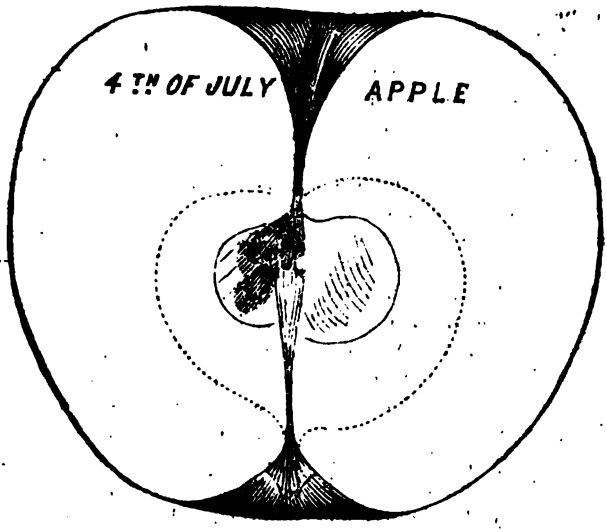
Discouraging News from Peachdom.

A correspondent of the *Prairie Farmer*, who lives in Egypt, and knows whereof he affirms, reports as follows on the peach and grape crops:

"Pretty much all the bearing peach trees, whether budded or natural, are dead, or so much injured as to be worth nothing. Two years old trees, moderately thrifty, are doing finely and promise to bear a little next year, or in two years to be loaded. Those of this age, *very thrifty*, are dead, particularly if in new land. Grapes are cut down to the ground and will not do anything this year; the roots are yet sound."

THE *Scotish Farmer* says that water from a gas tank is very destructive to all kinds of garden insects.

HORTICULTURISTS, do not forget the State Fair.



The Fourth of July Apple.

For a week or more past our market and fruit stores have been supplied with a very handsome, showy apple, bearing this name. Its history is briefly as follows: Over twenty years ago, an old German of this city imported a lot of fruit trees from his native place, Cassel, Germany Among them was an apple from the garden of his brother, known there as the "August apple." When it fruited here, specimens were found nicely colored, and nearly or quite ripe on the anniversary of our national birth-day, for which reason, being very patriotic, Mr. Jaeger called it "the 4th of July apple." Under this name it was introduced into the Columbus Nursery, and quite largely disseminated.

The tree is a handsome, vigorous, upright grower, forming a neat pyramidal head; like most of the apples from the north of Europe, the leaves and blossoms are very large; it is also extremely hardy. The memorable winter of 1855–6, which destroyed so many trees throughout the country, appeared not to affect this in the least, though other varieties growing beside it were destroyed.

The fruit is above medium to large, roundish oblate, sometimes inclining to conical, and more or less angular, especially in the earliest ripening specimens, pale yellow, nearly white in the shade, with distinct stripes of red in the sun, and covered with a delicate white bloom.

Flesh yellowish white, tender, juicy, quite acid, of good, though not high flavor. It is a fine kitchen apple, cooking very tender, its brisk acid, when properly tempered with sugar, making a very agreeable sauce.

It is an early bearer, and productive; ripens a little before the early harvest, and for several weeks thereafter; valuable for family use, and for market. $20 00 have been received for a season's crop, from a single tree.

The outline was originally prepared for the *Prairie Farmer*, from a specimen sent by us a year or two ago, and represents one rather above the average, though not the largest. A. G. HANFORD.

COLUMBUS, July 16, 1864.

[We are indebted to Mr. Hanford for beautiful specimens of the apple above described. They were the first fully ripe apples we had seen, and with their beautifully striped, smooth surface, tender pulp and pleasant acid taste, they proved most acceptable to us and a few fortunate friends with whom they were shared —EDITOR FARMER.]

FOR UNFRUITFUL GOOSEBERRIES, prune freely in the fall, cutting out old wood and shortening in the new. An old bush may be cut back one half to advantage. If still inclined to wood without fruiting, pinch in the summer growth.

The Wisconsin Seedling Strawberry—Fine Specimens.

MESSRS. HOYT & CAMPBELL:—Not being able to give you as perfect specimens of the Wisconsin Seedling, last year, as we desired, I take the liberty of sending you a few, as we have raised them this season, showing more perfectly the conical and wedged shape of this particular variety. I had reserved some a little larger and more curiously shaped, but the birds had pecked them before I was ready to send them. The Seedling is about two weeks later than Wilson's Albany. I also send you a specimen of our next two best varieties: the Triomph de Gand, and the Great Austin, or Shaker Seedling. Both are very prolific, and are splendid fruit. The Wisconsin Seedling is sending out runners very abundantly, and promises well. Yours, &c.,

MRS. J. PRENTICE.

WATERTOWN, June 29, 1864.

[The specimens of the Wisconsin Seedling and other strawberries above referred to were duly received and quickly disposed of. They were all very fine, but the Seedlings took the prize. Larger than any variety we have seen this season, beautiful in color, and delightfully flavored. Glad that we are likely to be able to supply all our subscribers who are entitled to them the coming fall. —EDITOR.]

RULES FOR PRUNING GRAPES.—Hovey's Magazine gives substantially the following general rules for grape pruning, after recommending grape growers to be free in the use of the knife, followed by the remark, that where one vine is pruned too severely, nine are not pruned enough.

1st. No shoots should be nearer than one foot of each other.

2d. Prune back to within one eye of the old wood, every fall and spring, about one-half of the usual shoots—the remaining eyes producing canes to be retained for bearing next year--when the old bearing wood is in turn to be cut out, to make room for new shoots.

3d. Disbud or rub off, as soon as they appear, all shoots not wanted as bearing wood.

The State Fair.

A host of friends of horticulture were pleased at the announcement of another Fair, as an omen of good old times coming around again, as an occasion of general exchange of ideas and experiences, as well as of products and inventions. Now, in the department of Horticulture, a "*great show and a good time*" depends, not so much on the amount on exhibition, as upon the *variety* and number of entries; or, in other words, the industry and faithfulness of the great number of those interested largely in fruit growing. Notwithstanding the comparatively small crop of fruit being grown this year, we find in every orchard more or less fine looking specimens of the long tried varieties, or those more new and untested. Multitudes have choice fruit that they cannot name, or have not the true name; some have failed altogether, and would like to know the cause; others have been very successful, and now owe the public the benefit of their experience, as an act but humane or philanthropic; indeed, there are reasons abundant why a general rally of fruit growers and nurserymen should take place; and if all who come will bring a few specimens with them, we may have such a time of general interest in this department as has never been witnessed in this State.

Fruit growers, begin now to collect specimens of the early fruits; seal them up in air tight cans, with liquid sugar or diluted alcohol, to preserve form and color, and keep in a *dark, cold* place. (Special premiums being offered under this head, we hope for an uncommon display of *sealed fruits*.)

The fall and winter fruits being the main reliance, we urge the propriety and necessity of looking up the finest specimens, and then notify, *all hands off*.

Tie up with netting or other thin cloth, to mark and protect, and when picked, number, register, and carefully preserve the record of tree and fruit. Let this accompany the fruit on exhibition; it may add largely to the interest of the exhibition, by the actual information furnished.

Let all who are in the fruit growing interest, or who desire to revive the organiza-

tion of the "Fruit Growers' Association," make the next State Fair a special point of attraction, by their presence and contributions. J. C. PLUMB.

MECHANICAL AND COMMERCIAL.

The Digger and the Plow.

1701 BROADWAY, NEW YORK, July 9, 1864.

To the President or Secretary of the Board of Agriculture for Wisconsin:

DEAR SIR:—I wish to inquire which is the best way to *leave the soil*, after the plowing process. Is it better to leave the sod *turned over*, as is now done by the common plow, or leave it thoroughly *pulverized*, and the roots of the grasses *beaten* from the earth, so that they die on the surface, or may be removed, if best.

The argument in favor of *turning over* the soil is, that the crop *gets the start of grasses turned under*. The argument in favor of *thorough pulverizing* is, of course, anticipated, viz: *lightness* of soil, and readiness with which crops may root.

I am aware that *digging* devices have been submitted to the attention of agriculturists; but, so far as my own knowledge goes, they are not successful. Can you tell me why? I am also aware of the process of *dragging* plows, but as yet I do not hear of their introduction on the prairies.

Mechanics would *think* in the proper direction, and come to the aid of the farmer, as successfully as did Manny or McCormick, did they know justly what *would* or *would not* answer for plowing.

If you will take the trouble to enlighten me, you will confer a favor on

Yours, &c, WM. S. SAMPSON.

ANSWER.—Our verdict is for the *digger*, in all cases, except for the work of original *breaking*, or for turning under turf; in other words, for all lands in regular cultivation. For such lands thorough digging and pulverization is emphatically and in every respect better than plowing.

The plow is a wedge, mechanically considered, and cannot fail to pack and harden the soil to some extent, on both the upper and the lower side; whereas the digger renders it lighter and more porous.

The reason that the diggers have not been in successful use for a long time is because of the greater complexity of the machinery necessary to the perfect accomplishment of the kind of work they are required to do. They are, nevertheless, bound to succeed in course of time, and measurably to supplant that good, old-fashioned implement, the plow. This is our settled opinion.—EDITOR FARMER AND SEC. W. S. A. S.

"Which is the Best Grain Drill?"

A correspondent—and doubtless there are many more of the same sort—is anxious to be satisfied as to the best grain drill. He wishes particularly to know whether the Badger State Drill, manufactured at Janesville, and advertised by us, has given satisfaction the past season; also, whether the corn planter attached has done good service. The following extract from his letter embraces a discussion of what the Drill should be:

* * * As to myself, I believe in drills. I am doing but a small business in farming, and am too poor, or else I would have one. I have used one belonging to a neighbor, a very little, and I like it, though I think a drill could be got up in better shape for working than any I have seen. When the tubes and teeth are set all in one row, they work well, when the ground is fine, and right for them; but when it is not right, they will sometimes clog, as the teeth come too near together; and when they are set in double row, they clear the rubbish better, but do not leave behind as pretty work, and the teeth in the latter row fill the channels of the first row, and cover the seed of the first deeper than the last row. I think a drill got up in the shape of a >, or what is called V drag, only more spread out, and with a seat behind, would clear rubbish better, leave more even work behind, and enable the driver conveniently to watch its working. I suppose it would be some more expense to get up, as it would need, perhaps, a little more gearing to work the two seed rollers, and the two seed hoppers, or boxes. I don't know whether it would need an extra small tumbling wheel in front, or wheth-

er it could be better balanced evenly on two wheels. If you think the above would be any improvement to the drill, you may call the attention of drill makers to it; if not, let it slide. GEO. CAPSTICK, SEN.

FOUNTAIN, WIS., June, 1864.

P. S.—The *Farmer* is cheap enough, without strawberries, or anything else. I picked up, in three nights, last winter, eight volumes, and I would not like to sell the worst of them at cost price. Please excuse my badly written letter. G. C.

SCIENCE, ART, STATISTICS.

Agricultural and Scientific Expedition to Eastern Asia.

HEADQUARTERS VETERAN RESERVES,
Martindale Barracks, Washington, May, 1864.

Mr. EDITOR:—May I be allowed to solicit your kind co-operation in promoting the project of an exploring expedition, chiefly in the interest of agriculture, which is under the consideration of the Committee on Foreign Relations, and of the Committee on Agriculture, of the Senate. At least, I beg that the enterprise may be discussed or noticed by your journal. Numerous bodies, scientific, agricultural and legislative, have concurred in memorializing Congress in favor of the scheme.

I beg to subjoin extracts from the petition of the New York State Agricultural Society, and the American Institute, which succinctly explain the object contemplated by the proposed exdedition. Very respectfully,

D. J. MCGOWAN, U. S. A.

Per B. J. LESTER.

Resolved, That the Society regard as a subject of great importance to the industrial and agricultural interests of the United States, the project of Dr. D. J. Macgowan, U. S. A., for the appointment by the National Government of a commission, composed of scientific men and practical agriculturists, to visit and explore Eastern Asia, with a view to acquire information bearing upon arts and manufactures there pursued, and to obtain and transmit seeds, plants, and animals, the cultivation and propogation of which would be likely to add to the valuable products of our farms; that it is likely to result in substan ial benefit to every section of the country.—*New York State Agricultural Society.*

The American Institute, which has for its object the advancement of commerce, agriculture, and the mechanic arts, earnestly recommends to the fostering care of our National Government this expedition, as one which can hardly fail to increase the number and variety of our agricultural products, will most likely add to the catalogue of new and useful minerals and animals, lead to the discovery of new and valuable fibrous textiles, give an impetus to our foreign commerce, and promote g nerally the cause of science and agriculture.

Your petitioners therefore pray for the enactment of such laws, or the adoption of such resolutions, as may secure to the proposed commission of exploration not only such aid as will be satisf ctory to its enlightened projector, but at the same time be creditable to a great and growing nation.

[We regret that the above communication came too late for the June number of the *Farmer*, since it could not otherwise appear before the adjournment of Congress; not that the *Farmer*, or any other one journal could exert a very material influence upon the decisions of Congress, but that we might the more opportunely have shown our interest in the enterprise it advocates.

In times past the cause of agriculture and of the world's civiliza ion have been greatly advanced by expeditions of this sort; and in our opinion a liberal appropriation by the National Legislature for this purpose would prove a good investment. We believe the measure failed to carry at the last session, but its friends should not despair on that account. Dr. McGowan, the projector of this scheme, is as fit a man as any citizen of the United States to lead the expedition, for the reason that in addition to being a man of large scientific and practical knowledge, he has had a residence of many years in China and Japan, and is thoroughly acquainted with the language and customs of the leading oriental nations.—EDITOR.]

A GOOD WASH.—An excellent and glossy wash for the walls of rooms is thus prepared: Mix oxide of zinc with common size, and apply it with a brush, as ordinary whitewash of lime. After this apply a wash in the same manner of the chloride of zinc, which will combine with the oxide, and form a smooth cement with a shining surface. Wall-paper, after a time, absorbs deleterious substances and becomes unhealthy.

Chemistry Simplified.

A neat, substantial edition of Porter's Chemistry has just been issued by Barnes & Burr, New York, which makes use of very simple apparatus to illustrate the text. Clay tobacco pipes, glass tumblers, earthern bowls, and other simple apparatus, take the place of the more complicated and costly. The whole thing is so simplified as to enable the teacher of the common school to introduce it, to the great benefit of his more advanced pupils. Even the young farmer may very profitably enter upon the study during his leisure hours. Chemistry is so very intimately connected with all the affairs of life, that some knowledge of the subject is almost indispensable. The present edition of this work gives some of the more simple applications of chemistry to agriculture and the various arts. L. L. FAIRCHILD.

ROLLING PRAIRIE, WIS.

THE MOON.—Professor Phillips, of England, has succeeded in obtaining drawings of the moon seen through a new telescope with a six-inch object glass. They exhibit many new and striking features, showing a volcanic character of which we have no conception. What would we think if our whole continent was a collection of craters, with hills rising out of their midst, and divided by radiating ravines of awful depth? The only approach to any such scenery in our world is to be found in the Cordilleras of our gold regions.—*Scientific American.*

NEW USE FOR PETROLEUM.—A surgeon in the Federal army has introduced the use of petroleum for suppurating wounds. He says: "What cold water is to a wound in its inflamed state, coal oil is to it in its suppurating state, dispelling flies, vermin, and promoting healthy granulations. I have seen two patients, whose wounds had been dressed with it, asleep before I was through with the third."

NEW USE FOR COAL OIL.—Coal oil is said to be a sure destroyer of bed-bugs. Apply plentifully with a small brush or feather, to the places where they most do congregate. The cure is effectual and permanent. Gilt frames, chandeliers, &c., rubbed slightly over with coal oil, will not be disturbed by flies.

THERE ARE 38,184 houses of worship in the United States, of which 12,814, or about thirty-three per cent. are in rebeldom.

THE HOME.

Fancy Work vs. Romancing.

DEAR FARMER:—In your May number appeared a communication from "E. P.," entitled "Farmer's Daughters," in which I noticed, particularly, the remark that we country girls are in danger of becoming too practical. This, I think, is very true. A certain—yea, a large—amount of practicality is, of course, desirable; but there is an old saying which I must be allowed to quote in this connection, viz: "Too much of a good thing is worse than nothing." I do not think God would have given us so many materials which need but the labor of our hands to become pleasing to the eye, if He intended we should withhold that labor; nor do I think He would have planted within us love for the beautiful, if it was not right to gratify that love. Therefore, it is not *right* for us to become too practical. But how the romancing which "E. P." mentions is to become a cure for this evil, I cannot perceive; neither do I understand how "such reveries" may ever "add a nameless charm to a character." Taking the country girls whom I frequently meet and myself as any kind of a standard, all that the "building of cloud castles," the "dreaming," and the "romancing," would amount to would be, that the difference between those bright mind-pictures and our real life would certainly not make us more contented with our lot. Now, dear *Farmer*, *I* think that if we farmers' daughters were encouraged in exercising our ingenuity and employing our time in making little things, which would give a cheerful appearance to our homes; if we were taught that our parlors may be as pleasant, and the articles in them as tasty, though perhaps not as costly, as our city cousins', *there* would be the preventive and the cure for an excess of practicality. Therefore, will you pardon me if I trespass still further on your patience, by mentioning a few kinds of 'fancy work' which I admire, and which are very simple, and easily made. A wreath of leaves—different kinds, of course—stuck on to Bristol board, or other stiff, white paper, with a solution of gum arabic

and water. Then varnish the wreath and paper with white varnish. The best time to make leaf wreaths is early in the fall, as there are then so many colored leaves. Pressed flowers can also be made into a beautiful wreath, the same way. Baskets and frames are pretty, made of card board, and covered with moss—they are so thoroughly rustic. Beautiful frames and baskets may be made of acorns, beans, coffee, red corn, and pine cones, glued on to a card board frame, and varnished. These are all inexpensive, and cost little tronble. Boquets of "crystalized" grass are very pretty. Some flowers may be crystalized. My rule is: take twenty-four ounces of alum, and one pint of soft water; simmer over a slow fire, stirring it frequently, until the alum is dissolved. Let the solution get cool, but not cold, and dip the flowers and grasses in, one at a time. Sometimes it may be necessary to dip them into the solution several times. There are many other beautiful things which can be made of materials which we all can procure, but those I have mentioned are some of the simplest. HATTIE.

EMPIRE, WIS.

A Word from the Far North.

MR. EDITOR:—I am surprised that your oft repeated invitation to contribute to the columns of the FARMER is not responded to by those in this community who are fully capable of interesting your readers; but as no communication from this Lake Superior region has yet appeared, permit me to occupy a little space, and perhaps shame at being so poorly represented may induce others to write.

Although almost beyond the pale of civilization, with a vast wilderness between us and the more favorite portions of our State, we yet hope the time may not be far distant when the mineral wealth and fertile soil of this region will place it in a more enviable position. For the present we move on in the even tenor of our way, in a little world of our own—more especially during the long winter months. We never felt the inconvenience of this isolation so much as since the war began, for with the love of country deeply implanted in our nature, we would rejoice when she rejoices and weep when she weeps. Now, when the exultant shout of victory, or the saddening tale of defeat is borne like a wave across the states, our faithful mail-carriers mount their snow-shoes, and with the precious news strapped upon their backs, commence their toilsome tramp, that we, too, by-and-by, may learn what progress is being made in puting down the rebellion, which, may the God of justice and liberty help us to soon bring to a final end.

We were much amused with "Mrs. Hopeful on Slovenly Husbands." She says the majority of farmers "are as slovenly as they well can be." That is a deplorable state of affairs. Perhaps the following recipe might prove an efficacious remedy, if well applied: I would administer an occasional dose of kind talk, and set before him an example worthy of imitation. MRS. FAITHFUL.

ASHLAND COUNTY, WIS., 1864.

HEALTH AND DISEASE.

[From the Herald of Health.]

"What Shall We Eat?"

BY MRS. M. M. JONES.

A "Farmer's Wife," in the May number of the *Wisconsin Farmer*, under the above heading, says:

"I was much interested in the article in your February number, entitled, 'How we abuse our Stomachs.' I believe it is all true, and am sorry it is so, for it is a sad reflection that so many in this great nation are 'digging their graves with their teeth.' But it seems to me that, had I wielded that writer's pen, I would not—*could* not—have left off where he did; but, having pointed out the dangers, I would fain have suggested a remedy."

She then asks if the editor, or some one of his many correspondents, who know how, "will not be so kind as to answer the question which heads this article, in such a way that the answer can be used practically and successfully in a farmer's family, and yet so as to give satisfaction all around?"

The article a "Farmer's Wife" was commenting on, was an extract from "Hints toward Physical Perfection." Among other criticisms on it she says:

"Suppose a prairie farmer's wife, as she

reads the article referred to, should resolve, that so far as she is concerned, she will wash her hands and her conscience from any share of this stomach abuse; that henceforth nothing but *health* shall find a place under her dish-covers. Noble resolution! but how to be carried *into practice?* Aye, there's the rub! Remember, I am speaking of a farmer's wife, whose duty it is, in harvest or threshing time, to prepare three meals and two lunches per day, for from six to sixteen stalwart, hard-working men. Now, let us see what things are ruled out of this common bill of fare: 'Too much meat, especially pork' Well, empty your pork-barrel and nail on the cover of the beef-tub. 'Hot soda-raised biscuit, hot griddle-cakes,' raised bread, pies, and cakes, all at 'one fell swoop.' Alas for supper and breakfast, now!"

Yes, my dear farmer's wife, "empty your pork-barrel, and nail on the cover," so tightly that no power on earth can ever open it again: and *never*, as you value your own, your husband's, or your children's health—*never*, under any circumstances, alllow one particle of anything whatever pertaining to that *measly, scrofulous abomination, the hog* (unless it be as soap-grease), to enter your dwelling. If you use meat, use beef, mutton, veal, poultry, or fish. If you cannot procure these fresh at all times, why, a supply of beef or mutton for the consumption of a family during the entire year, can be salted down as easily as pork. The expense may be somewhat greater, but you will be amply repaid in health, and the extra expense can be made up by using it less frequently, and thus you will be doubly the gainers. Once a day is as often as any person should use meat, however severe his labor may be. And in "harvest or threshing time," even if you are "on the prairies, with no market nearer than from seven to twenty miles," your husband can, if he chooses, have it so arranged that you can have a calf, a sheep, or some poultry to kill.

So much for the meat part of the question. Now for the bread After quoting from the article she was criticising a paragraph treating of the unwholesomeness of the common fine flour fermented bread, soda biscuit, etc., she says:

"Well, well, what next? Even bread, the 'staff of life,' condemned! Poor farmer's wife, what will you do? Your delicious white biscuit, that tempting short-cake, the fine light bread, so well appreciated that from fifteen to twenty loaves per week will barely supply the demand—all these '*unfit to be eaten*'! Well, wouldn't we women folks like to see a table on the improved plan, all ready for dinner, or supper, or breakfast—no matter which? And wouldn't we like to hear what the men had to say when they were done eating? Shouldn't wonder if the first meal on the 'healthy' plan would be, with many of them, the last; and instead of binding sheaves in the harvest field, they would most likely shoulder their packs and be off; for, however nice this theory may be, and true withal, and, perhaps, practicable in one's own little family, it does seem to me very nearly an utter impossibility to adopt any such reforms in a farmer's family, where there are a number of hired men. Why a loaf of brown bread is enough to scare away nine out of ten common hands!"

And well it may! For not one woman in a hundred knows how to make a loaf of good brown bread. And were our "Farmer's Wife" to place before her hired men such heavy, soggy, miserable stuff, in the shape of white bread, as many, who attempt to make brown bread, produce, I think she would frighten the whole "ten" away; and I shouln't blame them for going, either!

Unleavened bread *may* be made, however, far sweeter than any fine flour fermented bread, and quite as light, porous, and spongy, and by a process, too, at once simple, easy, and expeditious.

The first thing necessary is, the pans for baking it in. Go to a tinman's, and request him to make for you a number of tin "patty" pans, two inches square and three-fourths of an inch deep. Ascertain how many of these it will take to fill your stove oven, and then have him wire the edges of these tins together, in squares of six, twelve, siqteen, or any number you choose. The most convenient form is, where four sets will just fill the oven.*

* Or, with less trouble, and no more expense, these tins may be procured already made, in squares of any required dimensions, at the rate of $1 00 per dozen, of R. T. Trail & Co, No. 15 Laight street, New York, who, to meet the continual demand for them by "those who have eaten this bread, keep them constantly on hand for sale," and can send them by express to any part of the country. They are called "*Gem tins*," the name "*Gem*" having been given to a specimen of this bread on its first introduction to a

The next thing to be attended to is the flour. When your husband goes to mill, request him to charge the miller particularly to have his mill-stones *very sharp*, in grinding your Graham flour; for, if they are dull, instead of the wheat kernels being *cut*, they are *mashed*, thus destroying much of the life of the flour, rendering it impossible to have as light, nice bread as when this precaution is observed.

Your pans and flour being in readiness, and your oven *hot*—a *hot* oven, during the entire baking process, being absolutely essential to success—you are prepared for making your bread for the day. (It should be made fresh every morning.) Take a sufficient quantity of pure, cold water - or you can, if you choose, use equal parts of sweet milk and cold water—and stir slowly into it Graham flour sufficient to make a batter a trifle thicker than that used for ordinary griddle-cakes. Fill the pans *full*, and bake in a *hot* oven, from thirty to forty minutes, or until both sides are nicely browned.

No definite rule as to the proportions of flour and water can be given, owing to the difference in the absorbing properties of various brands of flour. Of some kinds the batter will require to be made considerably stiffer than the consistency above mentioned. A few experiments will enable any one to approximate the right proportions with sufficient exactness. The flour should be stirred slowly into the water, in the same manner as in making mush. No more stirring is necessary after the flour is all added.

If these directions are all complied with, the tins being this size (which is very essential, as, being larger, the bread will not be light, or smaller, it will be dry and hard), the flour properly ground, the batter of the right consistency, and the oven *hot*, it will rise nearly one-half, and be almost as light and porous as sponge cake.

During an experience of several years, and that, too, among hundreds of persons, I have never yet met with one who did not relish this bread, even among those who, at the sight of a loaf of ordinary brown bread would be "frightened away."

The "middlings" or "*cannille*" of wheat made into bread in this manner is very nice; and if our "Farmer's Wife" chooses to take her "nice fine flour" in the same way, making the batter rather thicker, however, (say about like ordinary bread "sponge,") she will never again regret her "delicious white biscuit," her "tempting short-cake," or her "fine light bread," for she will have an article as light, and far sweeter, than the nicest soda biscuit she ever tasted; and as far as the bread is concerned, I think her experience will be, that, instead of frightening away "nine out of ten" of her husband's hired men, they will all, even the coarsest pork-and-whskey-fed laborer among them, find her "Gems" so delicious, that her only trouble will be, they will eat so many of them that she will find it difficult to keep enough on hand to "supply the demand."

Corn "Gems," made by stirring corn meal into sweet milk, until a *thin* batter is formed, and baked in the "Gem" tins, is also excellent; and all of these various kinds of bread are perfectly wholesome, eaten warm or cold.

[To be continued.]

large Health Institution, by a fastidious patient, who thought it immensely superior to any other bread, and therefore requiring a *precious* name; and the *sobriquet* passing the rounds of the tables, along with the bread, at last became firmly attached to it.

YOUTH'S CORNER.

No Enigmas this Month.

Now, I am sure you are disappointed, and it is because I am willing you should be, that I have written "no enigmas," at the head of this article. Don't I like to please the thousands of children that, every month, turn so eagerly to the Youth's Corner of the *Farmer*? If I did not, I should take no pains to have these things to interest you, and still greater pains to give each one credit for what is sent in. But it seems I do not satisfy you all. A few times, out of the enigmas sent in by the young folks, I have selected some for publication, and, thereupon, have received a score or more of letters, asking, in terms that almost pouted and scolded, why others were withheld.

I am ashamed of this, and away down in

the background of the Youth's Corner wish to say a word to you children, all of which is to be kept quite to yourselves, as I should not like to have the grown-up people who read the *Farmer* know that such a talk had become necessary in order to keep our amusements out of a snarl.

Once for all, then, let me say, I cannot use any large proportion of the enigmas sent me, for the reasons that they are too numerous, and are not good enough. Some that are left out are just as good as some that are published; but since I cannot have room for all, I, and not you, must be the judge of which shall appear. If you continue to write me cross letters, I shall not publish any of your enigmas, but write them all myself.

Again, you ought to know by this time, and ought to remember when you write about these things, that your letters should be addressed to me, instead of to the Editor. You should never mix answers to puzzles, &c., with business letters. If it is convenient to write when your father or brother is sending off a business communication, and so economize the postage, all right; but le your note to me be a seperate affair, so that it can be handed in by itself. Do this, and send in your answers as early as possible, that there may be less grumbling about somebody's name not having credit.

One thing more. This amusement corner was not intended to interfere in the least with your improvement, but rather to help you as scholars. Some of the letters that come to me, and evidently written by very young persons, are models of good writing, correct spelling, and careful punctuation. Other letters are so blundering and careless in all these respects, that it is a trial of patience to make them out.

Children, send me your enigmas and your answers, but take time enough to get up something worth sending. Write carefully, write to *me*, and keep good natured.

MRS. HOYT.

Answers to Enigmas, &c., in July No.

No. 1.—"Grant;" answered by Mary and Margaret Tripp, Fond du Lac; E. A. Brace, Fulton; Myra C. Kincaid, Portage City; Edwin S. Smith, Fairfield; Mary, Ellen and Hattie Cole, Brodhead; Albert M. Graves, Cambria; Charles and Thomas Brown, Plymouth; A. I. E, Westport; Newton J. Straight, Neosha; Lizzie and Annie Greening, Mazomanie; Eva M. Monell, Prairie du Chien; Amy A. Giddings, Clayton and Florence Bond, Reesville; H. D. Brier, Baraboo.

No. 2.—"Truth is powerful, and will prevail."

No. 3—"California;" 2 and 3 answered by all the above, and also by Ellen Whittaker, Reesville, and Sarah L. Sayles, West Middleton.

EDITORIAL MISCELLANY.

Get Ready for the State Fair!

Ye horse-men, ye sheep-men, ye cattle breeders, ye friends of the swinish race, ye cultivators of the field, ye worshipers at the shrine of Pomona, ye manufacturers of implements, machines, &c., and all ye fair ladies and artistic gentlemen, who delight in domestic manufactures and in works of art, finally, ye *everybody*, come to the Fair and bring your products with you!

Oh, the Drouth and the Bugs!

MR. EDITOR:—Notwithstanding the severe drouth, our crops have been revived by the late rains, and corn, oats, potatoes, &c., look well, and promise to be at least an average; but much of our wheat is already dead—ruined by the chintz bug; and still it goes. The probability is that there will not be much of that crop harvested.

Yours, &c., ROBERT CAMP.

MAUSTON, WIS.

[Sorry for the failure of the crops, but not so sorry as we would be were there no compensation. If Wisconsin farmers will learn, in consequence of these failures, to turn their attention to other and more profitable branches of husbandry, it may be better for them in the end that these failures have come. The chinch bugs may, in this way, prove to be their best friends.]

A Question.

Where can a hand spinning jenny be procured, for spinning wool, and at what price?

J. F. B.

[Advertisement.]

Redemption of Scrip by the Continental Insurance Company.

MADISON, WIS., July 22, 1864.

Dr. Hoyt, Editor of the Wisconsin Farmer:

DEAR SIR:—In your editorial notice of the Continental Insurance Company, published in the May number of the FARMER, you stated that in July, 1864, the Company would commence the redemption of scrip, in cash, according to the provisions of its charter.

The fiscal year, ending July 1st, 1864, has just closed, and I now have the pleasure of making the announcement that the business of the past year has furnished larger results than were anticipated by its most sanguine friends, and that out of the excess of the scrip fund of $500,000 the scrip issues of 1857 and 1858 will be redeemed and paid off in cash, with 6 per cent. interest thereon, on the 15th day of August next.

I likewise submit for your examination some statistics obtained from the Insurance Department of New York, which will still further illustrate the merits of the Continental, as compared with other leading insurance companies of this country.

Very truly, your obedient servant,

G. F. HASTINGS, Gen. Agt.

The Continental Insurance Company.

We invite the attention of our readers to a communication in this department from Col. Hastings, General Agent of the Continental, of New York. It will be seen that the assurances given in the May number of this journal, and in subsequent numbers, that the redemption of scrip issued as dividends to parties insured on the participating basis, would commence at the close of the Company's fiscal year, are to be made good on the 15th day of August.

This faithful redemption of pledges is of great interest, for two important reasons: First, it is evidence indisputable of the rapid growth of the Company's business; and, secondly, it demonstrates, what is not so true of some other companies pretending to do business on the same system, that the Continental is a bona fide participating company—honestly conducting its business on the participating plan and making it a point to reach, at the earliest practicable moment, that maximum amount of scrip named in the charter beyond which the Company may not legally go without commencing the work of redemption.

The Company's business in this State has more than doubled within the last three months, as compared with the same length of time for any previous year, furnishing conclusive evidence that its system and method of doing business are highly appreciated by the public when correctly understood.

On a review of the statistics referred to in the communication of Col. Hastings, we notice a few points especially worthy of consideration.

There are twelve companies in New York doing business on the plan of the Continental, and several of them are recognized as having been remarkably successful; and yet the most flourishing of the remaining eleven, although it has been doing business nearly as long as the Continental, has accumulated less than one hundred thousand dollars of the half million fixed by its charter as the maximum, on the attainment of which it will be obliged to begin the redemption of its scrip in cash.

These statistics further illustrate the carefulness and economy with which the business of the Continental is done, by showing that while there are several companies whose capital equals, and one whose capital and assets largely exceed those of this Company, there is but one whose net surplus, after providing for liabilities and reinsurance, is one-quarter as great. That company claims $3,286,270 total assets, to $1,345,386 for the Continental; and yet its net surplus, as above recited, is only $698,882, to $647,752 for the Continental. The Continental stands before the country, therefore, as the most ably and fairly conducted of the one hundred and two companies whose figures are reported by the Superintendent of the Insurance Department of New York—a proud showing, truly.

Don't Forget the State Fair,

To be held at Janesville, in the last week of September, and don't fail to have something for exhibition.

Mutual Life Ins. Co. of Wisconsin.

It affords us pleasure to learn that this excellent company is flourishing yet more and more. For the benefit of such as are already insured or may wish to insure therein, we make the following extracts from the Annual Report of the Company for the year just closed:

"The Trustees, in presenting their Annual Report, have to record a year of continued and remarkable prosperity.

"There have been issued during the year 3,148 policies, covering the amount of $3,994,500, which is an increase over last year's large business of 165 4-10 per cent. of the number of policies, and of 205 6-10 per cent. of the amount of insurance. Of these 525 are ten year non-forfeiting policies, and 102 endowments at different ages.

"The business of the company in Iowa and Minnesota has been largely increased during the year, and we have also extended our work into Illinois and Nebraska.

"This is now the only Life Insurance Company in the Northwest, and it is the design of the managers to occupy the field, and keep pace, as near as may be, with the growth and greatness of the Northwestern States.

"The losses for the year have been comparatively small, being only 73-100 of one per cent. of the amount insured at the beginning of the year, and comparing with average American experience as reported to Massachusetts Commissioners, as 73 to 121, and to English experience as 73 to 151. Of the number of losses, 5 died in the service of their country - 1 at Vicksburg, 1 at Gettysburg, 1 at Chickamauga and 2 in hospitals—covering $4,500 of insurance. The losses by the war thus far have nearly or quite been met by the extra premiums.

"In meeting the losses, it has been the practice of the company to pay promptly on receipt of satisfactory proofs, and thus give the bereaved family the greatest benefit of the insurance, without the fear, anxiety or suffering attendant upon delay.

"There have been added to the assets during the year, $113,337 34, an increase of 69 8-10 per cent., making the present accumulation the creditable sum of $275,595 21.

"It will thus be seen that the growth of the company has been steady and rapid, and that the public are beginning to appreciate the fact that there is in our midst a well established and successful institution, where Life Insurance can be obtained on as favorable terms as with any other company. By supporting this home company, and recommending it to their neighbors and friends, the members will also benefit themselves."

In their Annual Circular the Company sets forth the following good reasons for life insurance, and for insuring in the Wisconsin Mutual:

"REASONS FOR LIFE INSURANCE.

"1. Life and fortune are so uncertain that few men have such ample and safe resources that they can afford to live a *single day* without that protection for their families which Life Insurance alone furnishes.

"2 Life Insurance substitutes the certainty of leaving a competence for the *uncertainty* of life in which to acquire it.

"3 It is reliable, because based upon the well determined laws of Nature.

"4. It is easily obtained, being brought within the reach of every one who has good health. An investment of *six cents a day* will insure a man aged 29 for one thousand dollars.

"5. It permits a person to expend or employ his present means without undue anxiety for the future.

"6. It contributes to longevity by giving relief from mental anxiety, and in times of severe sickness sometimes turns the scale in favor of life."

"REASONS FOR INSURING IN THIS COMPANY."

"1. It is the only Life Insurance Company in the North-West, and is managed by men elected by the policy holders, whose known character, ability and position afford ample guaranty for its careful and successful management.

"2. It keeps and invests the money, for accumulation, where capital commands the best rates, and thereby tends to make money more plenty in the West.

"3. Its risks are in the healthiest portion of the country, and are not deteriorated by uniting them with those of less healthy districts.

"4. All its profits are equitably divided among its policy holders.

"5. It has already an ample accumulation for entire security.

"6. It makes the payment of premiums easy and equitable, by loaning to the *small insurer as well as the larger*, just so much of the premium as is fully secured by the "value of the policy" itself. By making the loan this amount, instead of half the premium, it prevents those who withdraw from entailing a loss upon the company, to be made up by those who continue to pay.

"These loan notes are not due twelve months from date, and are not liable to assessment, but may remain a loan upon the policy until cancelled by dividends, or until the death of the person assured."

Complimentary.

The *Sorgho Journal* says: "The WISCONSIN FARMER is an excellent monthly of 48 pages, published by Hoyt & Campbell, at Madison, Wisconsin, and comes to us regularly. It is conducted with marked ability, the style and execution of the highest order, and the subscription price only one dollar a year, with premiums to single subscribers, and extra inducements in proportion to clubs. These North-western people surprise us. The Indian trails are hardly obliterated from their prairies before splendidly built cities, long lines of railroad, agricultural journals, and metropolitan dailies spring into existence. If the agriculturists of Wisconsin and the demesnes adjacent do not patronize the FARMER liberally, they do not appreciate their privileges."

"Cannot Make Tree-Seeds Grow."

J. W. HOYT, Esq.—*Dear Sir:* I cannot make tree-seeds grow—evergreens, maples, beech, &c. Shall I soak until they sprout, or shall I freeze?

I am told that white clover will salivate sheep and horses. Is it true, or can I venture to sow with blue grass?

Yours, very respectfully,
WM. H. STODDER.

SOUTH LAWRENCE, MINN., June 20, 1864.

[Tell us just what kind of evergreens you want to grow, and we will endeavor to give you the *modus operandi*. As a general rule the seeds will be benefitted by the soaking The cedar, Scotch pine, larch, &c., should be sown in April. Potting for a year or two before putting them out is a good plan. Soil should be light and friable. Seeds should be covered about half an inch deep.

The seeds of the beech, maple, &c., should be gathered in October, mixed with double their bulk of light earth or sand, in a box, and planted about the first of April.

White clover will usually salivate the horse.—EDITOR.]

The Right Spirit.

MR. EDITOR:—I enclose two dollars for your benefit and mine; so keep the *Farmer* agoing while that lasts, and then dun me again. Respectfully yours, G. INEY.

OAKLAND, July 14, 1864.

Work for the Farmer!

RACINE THRESHING MACHINE WORKS,
RACINE, July 11, 1864.

MESSRS. HOYT & CAMPBELL:—Enclosed please find $2 00, on account of my subscription to the *Farmer*. I do not know how my account with the *Farmer* stands. Please inform me; and if this amount will not pay arrearages and one year in advance, I will remit again. It will not do to let the *Farmer* suffer for want of patronage. Our farmers, gardners, fruit, grain and wool growers, and manufacturers cannot afford to lose its benefits.

Yours, truly, J. I. CASE.

Tiring of all Wheat.

MR. EDITOR:—We farmers in the La Crosse valley are going to sow less wheat, and cultivate a greater variety of agricultural products than we have been wont to do heretofore. This one crop of *wheat, wheat*, we begin to think won't pay.

Yours, truly, S. N. ALDRICH.

WEST SALEM, WIS.

[Sound—eminently sound! We've been preaching that doctrine for over seven years. Glad the farmers are beginning to believe it. —EDITOR.]

"Until Death."

We have been receiving your valuable paper. Please continue to send it until death, unless ordered stopped.

Yours, J. F. BROWN.

BERLIN, WIS.

[All right. We will send the *Farmer* right along to you, and your posterity after you!

State Fairs of 1864.

Wisconsin, Janesville, September 26th to 30th; Iowa, Burlington, September 27th to 30th; Illinois, Decatur, September 12th to 17th; New York, Rochester, September 20th to 23d; Michigan, Kalamazoo, September 20th to 23d.

Evergreens.

Will the *Farmer* tell us how spruce and balsam evergreens are started and trained?

A. H. DARROW.

BRANDON, WIS.

[Some of our horticultural friends will give us an article on this subject.]

The Sorgo Journal and Farmer Machinist.

This useful and popular journal, devoted to the sorghum and sugar beet culture, etc., is now in the midst of its second volume. Persons to any considerable extent interested in the subjects of which it especially treats ought by all means to have it. Price only $1 00 a year Send your subscription to Pubs. Sorgo Journal and Farmer Machinist, 122 Main street. Cincinnati, Ohio.

Short Horned Durham Cattle For Sale.

I have for sale, on reasonable terms, several cows, heifers, and one yearling bull, all thorough breed. CHAS. H. WILLIAMS.

BARABOO, July 15, 1864.

Literary Notices.

110 ACRES ENOUGH. Published by

This little book of 150 pages, 12 mo, purports to give the experience of a Philadelphian, who, becoming disgusted with city life, bought eleven acres of land, on the railroad between that city and New York, and made thereon a most comfortable living for his large family. It contains much interesting and valuable information, and if it were entirely original and reliable, and were not manifestly written in the interest of land speculators, would be entitled to commendation.

IOWA AGRICULTURAL REPORTS. Several volumes have been received from Gen. Wm. Duane Wilson, Secretary of the Iowa Agricultural College; also, several other valuable documents. Iowa is a wide-awake, go-ahead state, and in her industrial interests is well represented by the officers of the Agricultural Society and Agricultural College. Wisconsin should look to her laurels.

[Advertisement.]

Madison Mutual Insurance Company.

Statement of the business of the Company for the half year ending June 30, 1864.

Number of policies issued	6,618
Amount of risks thereon	$6,158,118 33
Premium notes thereon	88,784 17
Cash premiums thereon	69,150 30
Losses adjusted and paid	13,179 13

Statement of the business of the Company for the corresponding term of the past four years.

	Policies issued.	Premium notes.	Cash Premiums.
1860, to June 30	1,763	$39,562 43	$16,008 32
1861, "	2,960	51,479 44	26,094 61
1862, to July 31	4,702	68,570 30	38,993 05
1863, to June 30	5,277	59,417 42	42,846 66
1864, "	6,618	88,784 17	69,150 30

It is gratifying to the officers, as it must be pleasing to the members, to exhibit the foregoing evidence of the rapid increase of business, and the present condition of the Company. The public faith, at first awakened by our able and untiring agents, and confirmed by the unwavering fidelity of the Company to its professions, has matured into a confidence which cannot be shaken by charlatan opponents or jealous rivals

The Farmers of the State have built up a Home Company, which gives them ample protection, and precludes the necessity of sending their money abroad for a security which they give to one another. It needs no brazen trumpet to sound its praise; the hundreds to whom property and home have been restored by its beneficence, and its immense and rapidly increasing business, are at once evidence of its guardianship and popularity.

Its best eulogium is its large home endorsement, and where it is most known it is vain for others to solicit the risks which come within its rules. Its present unimpaired capital is considerably over $500,000, consisting of premium notes and cash assets; and while it combines security and economy in a degree hardly paralleled, it is believed that no Mutual Fire Insurance Company in the United States presents as large a capital and a business as great.

D. WORTHINGTON, Secretary.

Notices of New Advertisements.

THE MADISON MUTUAL INSURANCE CO.

We have pleasure in directing the attention of our readers to the Secretary's report of the business of this eminently successful and popular Company, for the year ending June 30th, 1864.

The figures so happily presented declare the praises of the institution more forcibly than it is possible for us to do; and if anything further were wanting, the able and accomplished Secretary has so concisely and pointedly said it, that nothing need be added. The record presented is a noble one, and manifestly entitles the Company to the confidence and cordial support of the people of the North-western States.

CONTINENTAL INSURANCE COMPANY.

See a communication from Col. Hastings, General Agent, relative to redemption of scrip, with editorial comments thereon.

BOWER CANE MILLS

Are advertised by the Rock River Iron Works Company. This Company has repeatedly been indorsed by us in recent numbers of the FARMER.

GREAT WESTERN NURSERIES.

We have heretofore warmly endorsed Messrs. Reiter & Maddocks, and have seen no reason to retract our good words.

THE TOLEDO NURSERIES
Are advertised by George Baker.

SEPARATE GEARED SUGAR CANE MILL,
By B. J Powers.

BADGER STATE NURSERIES,
By Messrs. Landon & Robinson. These gentlemen are believed to be competent and reliable nurserymen, w rthy of a liberal patronage.

SNYDER & WALTER
Have a word to patentees. They are endorsed by some of the best business men of New York.

PUBLISHERS' CORNER.

Thrice Earned.

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We have advanced cash to pay enormous prices for labor, paper and other material, to continue the publication of the *Farmer*, which has been going to you for one, two, and perhaps three years, and for which you are still in arrears. During this time we have called upon you, once, twice, and perhaps three times. Possibly we may not have found you at home on either of these visits; we *may* have found you, and received a promise to call and pay, or remit soon. You have forgotten, accidentally, of course, to redeem this pledge. Now, gents, can you for a moment imagine that the reward which the patient are expected to receive is available for paying paper and printer's bills?

We made a strong appeal to you in the July number, (which met with a hearty and liberal response from a few,) for the money which is our due, and which ought to have been paid long ago. We submit whether it will not be more satisfactory to you to remit your arrearages promptly, and help us sustain the *Farmer*, by means of advance payment in future, or whether you will oblige us to go to the trouble and expense of calling upon you, individually, for these little bills. We must have them, if it takes six months to look them up. We ask you again, will you save us this trouble?

Specimen Copies for those who do not Read the Farmer.

If any of our subscribers think they can serve us by means of specimen copies of the FARMER, and have the inclination to do so, we shall be glad to furnish them any number which they think can be used advantageously. We have several hundred of the April, May and July numbers, which we should like to have go into the hands of those who do not read the FARMER.

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THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, SEPTEMBER 15, 1864. NOS. 9 AND 10.

The State Fair—A Word to the Wise.

The question was asked us this morning, (August 8th,) "Why is there so little interest manifested in the coming State Fair?" Our answer was, "Because most people, like a shying horse, will look at but one side of the track of life at a time."

Further reflection strengthens us in the opinion, that our answer was a just one. The war, as such, at the present time, so fills the minds of the masses, that they not only forget everything else — starvation, bankruptcy, ruin—but are really quite out of patience with the thinking few, who, taking in a wider range, so clearly see that a war cannot be prosecuted indefinitely, nor a mountain load of debt removed, without *work*—that Labor must have its triumphs before War can have its enduring victories.

In the recognition of this plain truth, and in the interest of that industry, without which we can hope for nothing, either as individuals, as a State, or as a nation, it has been resolved to hold a general exhibition of the products of our agricultural, horticultural, mechanical, and household arts. The bare announcement ought to be enough to insure success. But society is sometimes slow to see what is best for it, and must be labored with. What we want, then, is this: that every reader of the FARMER should turn missionary, and stir up his neighbors. It is vain for the officers of the State Agricultural Society to labor day and night, as some of them are doing, to make the Fair worthy of the State and of the times, unless the people will take hold of the matter in earnest. Awake! then, oh ye friends of Wisconsin Industry, and of our struggling nation! There is need of a united and vigorous effort on behalf of all the arts of peace. If your country calls you to arms, in God's name answer her call promptly, in person or by substitute. But if not, then be it yours to strive, with unflagging zeal and devotion, in the work that is left you to do. In times like these, there should be no idlers, no men of leisure in the land.

If you can see that a great exhibition, such as we may have at Janesville, in the last week of September, would be of service to the State and country, then clearly it is your duty to prepare for it, to induce others to prepare for it, and finally to come, bringing your products, your families, and your friends with you. Will you do it?

Fallows.

The benefits arising from fallows (land at rest without any crop on it,) have been much overrated. A summer fallow or a clean fallow may be sometimes necessary in lands overgrown with weeds, particularly if they are sandy; but is certainly unprofitable as a part of a general system in husbandry. It has been supposed by some writers that certain principles necessary to fertility are derived from the atmosphere, which are exhausted by a succession of crops, and that these again are supplied during the repose of the land and the exposure of the pulverized soil to the influence of the air; but this is not a correct statement.

How the State Fair may be Made a Great Success.

There are four classes of persons interested in the objects of the State Agricultural Society, who, if they will unite in making their best efforts, can make the success of the approaching State Fair perfectly sure, to wit:

First, the officers of the Society. The Executive Committee alone consists of fifteen members, well distributed over the State. Each of these gentlemen has large influence in his own district, and can, if he will, contribute very much towards awakening a general interest among the people; and inasmuch as the responsibility of success or failure rests principally with them, there can be no question but that they will do their duty faithfully.

Secondly, under the Constitution there is likewise a General Committee, consisting of the officers of all the County Agricultural Societies of the State. This Committee is quite numerous, and, in their double capacity of officers of county and State societies, should be able to do a great deal for the State Exhibition. Will they not bear in mind, constantly, up to the date of the Fair, their duty in this regard? At their respective county exhibitions, most of which will be held before the State Fair, they will be able, without much effort, to secure the attendance of many of the exhibitors, with their products, as well as of the people at large. Gentlemen, we earnestly hope you will do everything in your power.

Thirdly, there are hundreds and thousands of farmers, fruit-growers, mechanics, manufacturers, and ladies skilled in the department of housewifery and ornamental work, who, if they will each do their duty, have the ability to make such a display of the products of their industry and genius as will attract multitudes of non-producers to the Fair.

Finally, there is this class last referred to, viz: of people who go to such great exhibitions for the sake of encouraging and enjoying them—people who have a little leisure and money to spare, and who are always ready to welcome a grand gala-day, whose objects are the advancement of those interests which determine the prosperity of the State. This class will not be so numerous this year as in former years, and, on this account, it is all the more necessary that all who are in condition to come should be sure to attend. We Americans are a drudging people, working ourselves, our families, and hired help, with too little regard to the natural laws in accordance with which labor can be made most truly profitable. A little recreation will do you good, and how better can you recreate than by devoting a few days to the State Exhibition?

To this class, also, and to the people of the whole State, we say, come one, come all!

Agriculture in North-Western Wisconsin.

Mr. Editor:—Enclosed please find one dollar, to pay for the Farmer for 1864.

Not being engaged in agricultural pursuits, I thought I would not take the Farmer this year; but as it continues to come, and its monthly visitation seems quite as interesting as ever, and as I am willing to contribute my mite towards supporting a good agricultural paper in our State, I pay cheerfully.

Agricultural prospects are not very flattering in North-Western Wisconsin, this year, though fortunately the extreme settlements have been favored by occasional showers, and will realize a very fair crop.

L. C. Stanley.

Chippewa Falls, July 15, 1864.

Green Manures.

Land, when it is not employed in preparing food for animals, should be applied to the purpose of the preparation of manure for plants; and this is effected by means of green crops, in consequence of carbonaceous matter in the orbonic acid of the atmosphere. In a summer's fallow, a period is always lost in which vegetables may be raised, either as food for animals or as nourishment for the next crop; and the texture of the soil is not so much improved by its exposure as in winter, when the expansive power of ice, the gradual dissolution of snow, and the alternations from wet to dry, tend to pulverize it and mix its different parts together.

Chinch Bugs.

This distinguished harvester is mentioned this year by the press as destroying the crops in a large part of the area of Illinois, as well as most of Wisconsin. In these parts—south-western Wisconsin—the farmers have been troubled with them for over a dozen years, their numbers and spread growing each year, as a general thing, though some years apparently retrograding. There is no known remedy for them, nor any method of evading their ravages on spring wheat. Other crops are not particularly hurt by them. Some years it so happens that either the wheat crop matures out of season for them, or the bug appears at irregular time, in either case the crop escaping. The time of duration of this insect tribe is unknown. It may be some years. We have thought the tribe had about run its race, from various indications, but of this there are no positive signs. It is known that every race of insects in due time begets a cannibal, so to speak, (and perhaps the same is true of all animal species, not excepting the human,) which shall destroy its kind. In this arrangement of the Divine economy is our Hope. We think we write the uniform judgment of the farmers of this section by saying, that when the chinch bug appears in any farm region, then is the time to abandon spring wheat.—*Grant County Herald.*

Remarks.—We know of no data from which may be derived the conclusion that the Chinch Bug, whose unprecedented ravages have, this year, well nigh ruined half our crops, has had its day, and will soon disappear, unless it be this, viz: that some other pests of like character have, in times past, flourished for a time, and then unaccountably disappeared. Still, we have no objections to this encouragement of their hope, if it will only make the farmers of the country a little better natured, and will not interfere with the adoption of what, to us, seems to be the only remedy, to wit: the abandonment of wheat and barley growing, for a time—or, at least, as the *Herald* suggests, the abandonment of the invariable and universal growing of *spring* wheat and barley.

The Chinch Bug first made its appearance in this country in 1783, in the state of North Carolina, (wish it had staid there!) and by 1785, says Klippart, had become so numerous and destructive as to cause the culture of wheat to be abandoned in some districts for four or five years. In 1809 in again became very destructive in the same State.

It made its first appearance in this State--crossing over from Illinois—about twelve years ago, but has not been alarmingly destructive until within the past five or six years. This year its ravages have been wide-spread and thorough, not only in the wheat and barley fields of the State, but also in our crops of oats, corn, and cane. They have moved in grand armies, and have done a more destructive work than the Army of the Potomac ever dreamed of accomplishing. Some reliable accounts report them as literally blackening the fields and highways, and sweeping everything before them.

Tar seems to be a serious embarrassment when strewn in their path, and many of our farmers have saved their corn crop by drawing one continuous line of it around the outside of their fields, putting the tar either upon the smooth surface of the ground, or on the edge of fencing boards, kept upright by sticks stuck down on either side.

It is the opinion of authors who have written on this subject, that they are most numerous and destructive in dry and hot seasons. Whether this be true or not, the experience of the present scorching season confirms the theory. Wet seems to be inimical to them, as a general rule, though we have met with persons this summer who thought their multiplication increased by the two or three heavy rains which fell in July.

The Chinch Bug is propagated by means of eggs, deposited in the ground, and are hatched out in the spring. By some who have carefully observed and noted their habits, fall plowing is believed to be fatal to their eggs. Some are also of the opinion that drilled wheat has suffered less than broadcast. All these suggestions are

worthy of attention, and careful proving.

But, after all, we incline to reiterate the opinion, that one of the best ways to get rid of them is to quit growing the crops on which they mainly depend for a living.—EDITOR FARMER.

The Shady and the Sunny Side of Farming.

The *Atlantic Monthly* for July contains an article on "Glorying in the Goad," which we would be glad to put into the hands of every farmer in the country. After alluding to statistics which prove that agriculture is much less delightful and remunerative, as an occupation than stump orators would fain make our American farmers believe it is, the writer continues thus:

"If you do not trust the testimony of books, but will turn to living men, you will scarcely fare better. One man, whose recreations have been rural, but his business civic, conducts you through his groves and summer-houses, his stone barns and his latticed cottages, but tempers your enthusiam with the remark, that this fancy farming is sowing ninepences to reach sixpences. Relinquishing fancy farms, you go to the practical man swinging his scythe in his hay-field, his shirt-sleeves rolled above his elbows, and his trousers tucked into his boots. He shows you the face walls and the compost-heap, the drains and the resultant hay-cocks, with measurable pride, but tells you at the same time that every dollar he has earned on that farm has cost him nine shillings. This will never do. A third farmer has inherited his farm, not only without incumbrance, but with money at interest. Under his hands it waxes fat and flourishing, and sends to market every year its twelve or fifteen hundred hunded dollars' worth of produce. But you overhear its owner telling its neighbor that "it's a Cain's business, this farming: make any man cross enough to kill his brother!" You find this farmer racked with rheumatism, though in the prime of life,—bent with the weight of years before his time. He has lost his health just as he has improved his farm, by working early and late through sun and rain. You turn to still another farm, whose owner brings the learning of a college as well as the muscles of a yeoman to the culture of the soil. His nurseries and orchards are thrifty, his cattle sleek and comfortable, his yards broad, cleanly, and sunny. His fields wave with plenty, his granary overflows. Here, surely, you have struck into the Happy Valley. Here at last Tityrus reposes under the shade of his broad-spreading beech-trees. On the contrary, you find Tityrus in the back sitting-room, rolling his eyes in a fine frenzy over a very prose bucolic on the Condition and Prospects of Sheep-Husbandry, which he is writing for the "Country Gentleman" at five dollars a page. All the cool of the day he works on his farm, and all the hot of the day he devotes to his manuscript; and he avers with a solemnity which carries conviction, that he and his wife have come to the conclusion that they are carrying on their farm for the benefit of the hired help! He is devoted to farming; he is interested in its processes; but the men and maids get all the profits, and he supports his family by his pen. Everywhere you find one song with variations. Farmers and farmers' wives are not in love with their calling. They are not enthusiastic over it. The "smartest" of the children do not remain at home to take charge of the farm, unless impelled by a sense of duty to their aged parents, or lured by some promise of extraordinary recompense. Everywhere the farmer finds farming to be a "slave's life," "a dog's life," "delve all your days, and nothin' to show for 't," "hard scrapin' to make both ends meet." It is so unwieldly a mode of applying means to ends, that, if you must believe him, every quart of milk costs him six cents, with the labor thrown in, while you pay the milkman but five cents at your own door; every dozen eggs which he gathers from his own barn he gathers at the rate of twenty-five cents a dozen, while you are paying only twenty-two. And even when both ends do meet, and not only meet, but lap over, you scarcely find a hearty cheerfulness and sunshine, a liberal praise and unfeigned ardor, a contageous delight in the soil. "Jolly boys" in purple blouses may drive ploughs around pitchers, but they are rarely met on the hill-sides of New England. If we may credit Dr. Hall, they are quite as rarely seen on the rich, rolling lands towards the sunset.

Is this state of things inevitable? Farmers have a very general belief that it is. They not only plod on in the old way themselves, but they have no faith in the possible opening-up of any other way. Their sole hope of bettering their condition lies in abandoning it altogether. If one son is superior to the others, if an only son concentrates upon himself all the parental affection, they do not plan for him a brilliant career in their own line; they do not look to him to obtain distinction by some great ag-

ricultural achievement, a discovery of new laws or a n w combinati n of old laws; all their love and hope find expression in the determination "not to bring him up to farming." They "don't mean he shall ever have to work." Hard work and small profits is the story of their lives, and of the lives of their ancestors. and they do not believe any other story will ever be truly told of the genuine farmer. And when we say small profits we wish the phrase to hold all the meaning of which it is capable. It is hard work and small profits to body and soul; small profits to heart and brain, as well as purse. But every plan which looks to better things is "notional," "new-fangled," "easier to tell of than 'tis to do"; and so the farmer goes on his daily beat, with a shame-faced pride in his independence, fostered by the flattery of his county-fair orators, yet vituperating his occupation, bemoaning its hardships, and depreciating its emoluments, stubbornly set in the belief that he knows all there is to know about farming, and scornful of whatever attempts to go deeper than his own ploughshare, or cut a broader swath than his own scythe.

To suggest the possibility that all this is the result of limited knowledge, and that the most favorable and beneficial change might be found in a more liberal education and a wider acquaintance with the facts discovered and the deductions made by science, would be considered by a bold yeomanry, our country's pride, as an outbreak of "book-farming" in its most virulent form. "You may bet your hat on one thing," says the bold yeoman,—"a man may know sunthin', an' be a good minister an' a tol'able deacon, but he's spiled for farmin'." * *

Here the writer shifts the picture, and gives us the sunny side of farming. Read and re-read:

"Surely these things ought not so to be. Looking at this earth as the divinely prepared dwelling place of man, and looking at man as divinely appointed to dress and keep it, to replenish and subdue it, we should naturally suppose that there would be an obvious and pre-eminent adaptation of the one to the other. We should naturally suppose that the primary, the fundamental occupation of the race would be one which should not only keep body and soul together, but should be especially and exactly fitted to develope and strengthen all the powers called into exercise, and should also be most likely to call into exercise a great variety of powers to the fashioning of a healthy and beautiful symmetry. Looking still further at the secondary occupations, we find our views confirmed. The shoe-maker must bend over his lapstone, and he becomes stooping and hollow-chested. The blacksmith twists the sinews of his arms to strength, but at the expense of his other members. The watchmaker trains his eyes to microscopic vision, but his muscles are small, and his skin colorless. A very large majority of the secondary callings remove men from the open air, often from sunshine, and generally train one or a few faculties at the expense of the others. The artisan carries skill to perfection, the genius towers into sublimity, but the man suffers. Not so the farmer. His life is not only many, but all-sided. His ever changing employment gives him every variety of motion and posture. Not a muscle but is pressed into service. His work lies chiefly out-of-doors. The freedom of earth and sky are his. Every power of his mind may be brought into play. He is surrounded by mysteries which the longest life will not give him time enough to fathom, problems whose solution may furnish employment for the deepest thought and the most sustained attention, and whose solution is at the same time a direct and most important contribution to his own ease and riches. The constant presence of beautiful and ever-shifting scenery ministers to his taste and his imagination. Nature, in her grandeur, in her loveliness, in the surpassing beauty of her utilities, is al ays spread before him. All her wonderful processes go on beneath his eyes. The great laboratory is ever open. The furnace-fire is always burning Patent to his curious or admiring gaze the transmutation takes place. The occult principle of life surrounds him, might almost bewilder him, with manifestations. Bee and bird, fruit and blossom and the phantom humanity in beasts, offer all their secrets to his eyes. Every process is his minister. His mental and material interests lie in one right line. The sun is his servant. The shower fulfils his behest. The dew drops silently down to do his work. The fragrance of the apple-orchard shall turn to gold in his grasp. The beauty of bloom shall fill his home with plenty. The frost of winter is his treasure-keeper, and the snows wrap him about with beneficence. With nothing trivial, deceptive, inflated, has he to do. An unimpeachable sincerity pervades all things. All things are natural, and all things act after their kind. Is it a divine decree that all this shall tend to no good? Shall all this pomp of preparation r ghtly come to nothing? Do we gather the natural fruits of circumstance, when the mind travels on to madness, the body goes prematurely to disease and decay, and the

heart shrivels away from love and is overcast with gloom? Is all the appearance of adaptation false, and do farmers gain the due emoluments of their position? Not so. It is their fault that they do not see the life which revels in exuberance around them. In their minds is no under-draining, no subsoiling. Earth, with all her interests, takes unrelaxing hold of their potato-patch, but they have eyes only for the potato-patch. Accustoming themselves to the contemplation of little things, considered separately, and not as links in the universal chain, their angle of vision has grown preternaturally acute. Things they see, but not the relations of things. They dwell on desert islands. For all the integrity of Nature, they fail to learn integrity. The honest farmer is no more common than the honest merchant. He abhors the tricks of trade he has his standing joke about the lawyer's conscience: but the load of hay which he sold to the merchant was heavier by his own weight on the scales than at the merchant's stable-yard; the lawyer who buys his wood, taught by broad rural experience, looks closely to the admeasurement; and a trout in the milk Thoreau counts as very strong circumstantial evidence. The farmer does not compass sublime swindles like the merchant, nor such sharp practice as the lawyer; but in small ways he is the peer of either. We do not say that farmers are any more addicted to their characteristic vices than the lawyers and merchants are to theirs; but that they have their peculiarities, like other classes, and that the term *honest* is as necessary a prefix to *farmer* as to any other noun of occupation. We admit all this, but we believe it is the fault of the farmer, and not of his circumstances.

"His fault!" says the farmer, and say many men of whom better things might be expected. "How can he get wisdom that holdeth the plow, and that glorieth in the goad, that driveth oxen, and is occupied in their labors, and whose talk is of bullocks?" How? By "seeking her as silver, and searching for her as for hid treasures." For remember, O farmer! the despairing question is from below, the inspiring answer from above. It is not the Bible, but the Apocrypha, that casts doubt upon agricultural education. There *is* wisdom to him that holdeth the plow. Honor and health and wealth and great-heartedness are to be found in the soil. Earth is not one huge incumbrance to weigh man down; it is the means by which he may rise to heavenly heights. Earth has been the mother of dignity ever since her Maker's eyes looked upon her, and the Maker's voice pronounced her very good. And "Very Good" is the true verdict. Ignorance, stupidity, and sin insist upon perpetuating the curse from which she has been once redeemed; but a blessing lies in her heart for him who has but the courage to grasp it."

Saving the Tobacco Crop.

We had intended, much earlier in the season, to finish what we had to say on the practical branch of Tobacco Culture, &c., but circumstances have prevented; and even now we prefer to lay before our readers the concise directions furnished to the press by the President of the Kentucky Board of Agriculture. They are as follows:

As the plant approaches maturity, it begins to thicken, and assumes a stiff, slick and motley appearance, which the most unpracticed eye will readily detect. Should the weather be favorable, (namely, dry,) the first ripe plants may be permitted to remain standing until a sufficient quantity is matured to satisfy the planter in making a regular cutting. If, however, the weather be unpropitious, it is best to cut as fast as it matures, as it is subject to injury, under such circum-tances, if suffered to remain too long. The harvesting of the crop is an important period in its cultivation, and neglect upon the part of the planter will bring loss in its future value. In cutting the plant, a sharp knife is to be used and the stalk to be split about half its length, taking care not to break the leaves, or otherwise injure them, and the plant to be set, with the butt of the stalk up, exposed to the sun. So soon as the plant is wilted enough to handle without breaking, they should be taken up and laid in a heap of seven to nine in a place, being governed by their size, and hung as soon as possible, to prevent being scorched by the sun. The after part of the day is best for cutting; there is less danger of getting the plants sunburnt. The sticks on which the plants are hung are small pices of timber, four feet long, and of sufficient size to support the plants. These are taken to a barn, on a cart or wagon, after receiving the plants, or may be placed upon scaffolds, in the field, at the option of the planter. If the weather is fair, it is best to sun it, as it aids the curing, and adds to the strength and elasticity of the leaf after it is cured. Care should be taken not to place the sticks too close together if the weather be damp, as there is danger of injuring the plant After remaining on the scaffold a few days, it becomes yellow, or

assumes the color of a leaf in autumn; it must then be carried to the barn, or curing house, and placed away, keeping the sticks far enough apart to secure a fair circulation of air through them. If the weather is wet, it is best to take the plants to the house at once, and let the yellowing process take place in the house, rather than risk the changes in the weather, as rain is always injurious to the plant after it is cut, and especially after it becomes yellow. The curing process is one of the most important in the future value of the crop, and too much care can not be given it, a small neglect lessening the value of the crop seriously.

If the weather is dry, and the tobacco is not too much crowded in the house, the action of the atmosphere, assisted by a small portion of fire, will be sufficient to effect the object If, however, the weather is warm and damp, the atmosphere will not aid very materially in curing the plant, and unless firing is resorted to, the plant is certain to be more or less injured. It is always safer, after the house is filled with green tobacco, to rely mostly upon the action of the fire to a considerable extent. These should be small and slow, at first, and continued so until the moisture engendered by the fire is dried out of the tobacco, and then increased until the leaf is nearly cured. When this is the case, the fires should be suffered to go out, and the tobacco suffered to come in case, or get soft again. The quality of the article will be improved by permitting it to come in case once or twice before it is thoroughly cured in stem and stalk. Dry and sound wood is best for firing. If the object of the planter is to make a pie-bald or fancy article, care should be taken never to permit the leaf to get very soft during the curing process; and to make a really fancy article, the tobacco should be thoroughly yellowed before, and cured entirely by fire. This particular description is, however, not more desirable or valuable to the consumer, as the essential properties of the plant are frequently destroyed by the action of the fire. As a general thing, it is better to cure the weed by a natural process of air and the action of the atmosphere, and where the planter is provided with a sufficient quantity of room to house the crop without crowding too close, the object can be attained without the aid of much fire, and the wood and danger of burning the crop saved, and in some markets increase the value of the crop.

Dr. L. S. Pennington, of Sterling, Illinois, gathered from a young orchard of 5,000 trees, $8,000 worth of apples, in 1856.

Do Your Plowing in the Fall.

No matter what the crop to be grown, as a general rule, it will pay to plow in the fall, for these important reasons:

1. It insures the destruction of many insects, by turning up their beds to the surface, and exposing them to the frosts of autumn and winter.

2. It enables the soil, by the decomposition of otherwise valueless minerals, and by the absorption of fertilizing gases from the air, to reinforce itself for the better production of the crop to be grown.

3. It leaves the land in better condition, as a general thing, than spring plowing, which, after being done when the soil is wet, renders a heavy and lumpy condition almost inevitable.

4. It saves time, enabling the farmer to do his spring work when and as it should be done, and thus ensuring better returns for his labor.

This last reason has been illustrated by the failure of many wheat and corn crops the past season. By the lateness of the plowing, the planting was delayed until so late that the drouth prevented germination. One or two weeks earlier planting might have insured a fair crop, and prevented that irregular, spotted appearance, which now marks so many fields.

Lands sandy and dry do not necessarily require fall-plowing. Indeed, where the soil is very light, and liable to blow off in drifts in the winter, it would be better to plow in the spring. Such lands constitute the only exception, however.

Seeding with Clover after Corn.

W. J. Pettee in the *Country Gentleman*, says: The writer has been in the habit for several consecutive seasons, immediately after the last hoeing of corn, (which has been cultivated as level as practicable,) of sowing clover seed by going between each row one way, and carefully scattering the seeds under the leaves and stalks at the rate of 15 lbs. to the acre, and usually with good success. The corn seems to shade the seed sufficiently to protect it from the too powerful heat of the sun, and if the land is in good tilth, a good catch is secured for pasturing or plowing under.

[From the Report of the Department of Agriculture, for 1862.]

The Proper Time for Cutting Cane.

Cutting includes three things: stripping off the blades, topping and cutting from the roots. It is the practice of many to strip the blade some time before cutting; but this is wrong. When the blades are taken off, the sap ceases to circulate, and much unelaborated sap remains in the plant. If warm weather follows, there is great danger of fermentation The operations of nature should not thus be interfered with. Stripping, topping and cutting should not be done at the same time.

Where the topping should be made I am unable to state, for we have had no analyses, that I have seen, of each joint of the cane, to determine their difference The blades of the Louisiana cane die from the ground upwards, and I have seen the statement that that they use no higher portions of the cane than to where the blades are dead, being, as already stated, from three to five feet in length. We cut the sorghum according to the length of our wagon beds. Sugar-making will require more attention to this matter, and we must call in the aid of the chemist. But the specimens must clearly teach us the time for cutting. No sugar is formed, in any molasses I have seen, when the cane was cut in the end of September, and in the beginning of October, *or when the blades and canes had not turned red.* Analysis, it is true, tells us that the plant contains crystallizable sugar when the seed is ripe; but to get it to granulate is more difficult than to determine its presence by chemical tests. The redness of the canes and blades is like that of the leaves of our forest trees in autumn: the indication of the ceasing of circulation of the sap. This is a gradual process, and not until it is completed is the plant at its maturity. I commenced stripping early in October, but upon comparing the taste of the sap of the riper with the less riper canes, I could easily see the great difference, and this difference continued until all the canes had become red. *No stripping or cutting should be done until the cane has turned quite red,* and this period is from the beginning of the the third week in October in this latitude Whether topping as we do in tobacco cultivation, before blossoming, or at a later period, would be advantageous, has not been tried; but, as the seed is valuable, farmers would prefer its maturing, unless such topping would insure the formation of sugar. The Louisiana cane does not flower: its sugar has the entire strength of the plant, and it is said when it is allowed to go to seed in Central America this natural process interferes with the development of the saccharine materials. With the cutting and hauling the labor of the farmer ceases, and that of the manufacturer commences. As already stated, it is not my intention to speak of this branch of the subject, only so far as the duty of the farmer is connected with it. It is a matter of interest to both to have the question determined:

HOW LONG MAY THE CANE BE KEPT AFTER BEING CUT UP?

Reports have been made to our State board, stating that it may be kept unimpaired from four to six weeks. Others think that the first joint from both the top and bottom cuttings is soured, and should be cut off. The only analysis to determine this point that I have seen is that made by Lawrence Smith, of Louisville. He says: "Even on the surface which is cut an alteration commences at once; the sugar is changed, and this alteration gradually creeps from the cut extremity into all the joints of the stock. I have verified this fact in relation to the sorgho." By examining different joints, after it had been cut two or three weeks, the results were as follows, the joints being numbered from the extremity next to the roots:

Juice from joints.	Crystallizable Sugar.	Uncrystallizable Sugar.
First joint contained...	6 per cent.	7 per cent.
Third joint contained..	8 "	4½ "
Fifth joint contained...	9½ "	3 "

Nothing is said of the ripeness of the cane or of the condition of the weather—two things that would materially influence the character of the juice—nor of the mode in which it was kept. The Louisiana cane is kept several weeks by throwing it into winrows after being cut. The cane is protected from frost by the tops and blades, which are carefully piled over the stalks, and the water carried off by giving the stalks an inclination of three to four feet. But this method will not be adopted here, because the seed and blades are wanted for stock feed, and the blades are two few and narrow to afford much protection. It is better to work it speedily, and for this purpose our mills must be increased, so that every neighborhood may have its cane worked up in about three weeks.

The foregoing communication was written last winter, and having had the pleasure of examining the analyses of the specimens I forwarded to the department, I desire to refer to them briefly here, to show the correctness of the views I have advanced as to the absolute necessity of growing a perfectly matured cane

By the report of the chemist, it will be

seen that No. 3, although it had deposited some sugar before sent which was not put in it, yet subsequently deposited more than any of the others. The cane from which it was made was planted very thinly, and was well matured when cut. No. 4, which was cut in September, although it had the best soil and cultivation, but too thickly planted, yielded only a few undeposited grains of sugar. It contains but one more portion of sugar cane than No. 1, although the latter had deposited one-third its bulk of sugar. In all respects, but too early cutting, No. 4 was much better cane than No. 1. No. 5 possessed no better sugar qualities, chiefly for the same reason; but Nos. 6 and 9, although containing no sugar when sent to the Department, yet deposited much afterwards, evidencing that I was right in attributing their not showing sugar when sent, to the fact that the molasses had been kept in full barrels and in a cool cellar. The granulating process requires air and warmth, and perhaps light also.

To me it is obvious that the chief requisite for sugar-making from the sorghum canes is their *perfect maturity*, and such maturity is dependent on correct cultivation and late cutting. L. BOLLMAN, Indiana.

WASHINGTON, June 4, 1863.

STOCK REGISTER.

The Salt Question.

MR. EDITOR:—I fail to see that Mr. S. H. Carpenter, in the July number of the FARMER, has given any additional light upon the question, whether salt, by its nature and effects, is necessary, artificially, to sustain health. I made no objection to salt, or other component parts of food, as compounded and prepared by Nature. Mr. Carpenter helps illustrate the correctness of my position, that "food is food," &c., and that food "is never poison until made so by changing its original nature, after which it could not be considered food in any quantity," by his defining food to be anything that tends to develope the body and sustain health, and that "food must be compound, and not simple." He mentions hay and wheat, both proven by long use to be food, according to his criterion. Anything, therefore, that produces an opposite effect from food, must be considered poison. The "irritant," pernicious, and fatal effects (both admitted and claimed by him) of the acids, caustics, &c., obtained from the food referred to, goes to prove that the process of getting them has destroyed the "compound" food, and left only several kinds of poisons. There is additional proof of this in the fact, that the artificial compounding of these acids, caustics, &c, to reproduce the "staff of life," would give a sorry substitute for the sweet and nutricious bread made from genuine wheat. According to his own definition, I think he shows clearly that food is not poison, and as clearly, that poison is not food It is, therefore, absurd to claim that all food must be rejected to avoid being gnawed or killed by acids and caustics, because a process that destroys food produces poison. W. P. UNDERWOOD.

RICHLAND, FILLMORE CO., MIN, July 22, 1864.

Successful Wool-Growing.

MR. EDITOR:—Wool-growers have been in the habit of publishing their clips of wool in the FARMER. I wish to offer a statement of the weight of my wool, taken from two hundred and twenty sheep, in the month of June last. If you feel disposed to insert it in the FARMER, it may be the means of showing those about starting in wool-growing the necessity of procuring as good lots of sheep as they can find, without paying extravagant prices.

My flock contains one four year old buck, three yearling bucks, one hundred and forty-two ewes, and seventy-four wethers (yearlings, and two and three year olds). The weight of the wool was eighteen hundred and twenty-four pounds, clean washed. The average weight of the wool per head was about eight pounds and five-sixteenths of an ounce. I sold it for ninety-five cents per pound, which amounted to the sum of seventeen hundred and thirty-three dollars.

My average clip of wool last year on one hundred and seventy-three sheep was seven pounds. For the last few years I have bred my best ewes to Robertson Rich, and Washoe bucks, owned by H. Hemenway, Esq., of Whitewater, in this State.

RICHARD RICHARDS.

RACINE, July 26, 1864.

Some of the British Breeds of Sheep.

NUMBER VI.—THE CHEVIOT.

On the Cheviot Hills, which lie along the boundary between England and Scotland—though chiefly in the latter named division of the United Kingdom—there has been for many years a breed of sheep known by the name of the hills to which it is native. Youatt correctly describes them as having "the face and legs generally white; the eye lively and prominent; the countenance open and pleasing; the ear large, and with long space from the eye to the ear; the body long—on which account they are called 'long sheep,' in distinction from the black-faced breed. They are full behind the shoulder, have a long, straight back, are round in the rib, and well proportioned in the quarters; the legs clear and small-boned, and the pelt thin, but thickly covered with fine, short wool. They possess very considerable fattening qualities, and can endure much hardship, both from starvation and cold. He is fit for the butcher at three years old, and at two when crossed with the Leicester."

The above are the characteristics of the pure breed; but since their admixture with other breeds, as, for instance, the Leicester and Black-faced, of the neighboring districts, they are often found with grey or dun spots on their legs and faces, and with some of the characteristics of the Leicester sheep.

While making the tour of Scotland, in 1862, it was our pleasure to cross the Cheviot Hills, and to see this interesting breed of sheep grazing in their mountain pastures. Near Jedburgh we saw several fine flocks, from the stock of Mr. Thomas Elliott, who is, perhaps, the most noted of the improved breeders of the Cheviot sheep, and who, within the past fifteen years, is said to have taken no less than three hundred prizes at the different exhibitions in the kingdom. They were fine specimens, and probably as correctly informed us as it was possible to be informed of the characteristics of the improved breed. We also saw, in the neighborhood of Hawick, fine specimens of the original Cheviot sheep. Lord Napier, the English Minister to this country during the administration of James Buchanan, was also an enthusiastic cultivator of this breed.

It was not until quite a recent date that importations were made into this country, and yet in many portions of New York they have been extensively crossed on the native breeds, and with success. The Albany *Cultivator* says: "They are hardy, bearing exposure to wet better than the long wool breeds, on account of the wool upon the back and the hardiness of their constitutions."

We have never seen any of the Cheviot sheep in the West. It seems to us quite probable, however, that the improved Cheviot would do well in some of the hilly districts of our own and neighboring states further west.

"GREEN MOUNTAIN BOY"—A pure Spanish Buck, bred by Henry W. Walker, of Shoreham, Vt., now owned by Horace Williams, of Whitewater. For description, see advertisement in this number.

Producing the Sexes at Will.

It appears, from an article in the *American Journal of Science*, for July, that Prof. Thury, of Geneva, Switzerland, has discovered the conditions on which, in the case of animals that usually produce but one at a birth, and have a regular rutting season, it is perfectly easy to produce the sex most desired.

The pith of the theory is, that before the ovum has reached a certain degree of maturity, it will invariably produce a female offspring; while, on the other hand, it is equally certain to produce a male *after it has passed* that degree of maturation.

The Professor's application of the theory consists in ordering that the female, when it is desired to produce a *female* offspring, be brought to the male *at the beginning of the rutting season*, or toward the close of that season, if it is desired to produce a male offspring.

A Mr. Cornax, of the Canton of Vaud, reports that he has made twenty-nine careful experiments with cows, with a view to test the practical value of this theory, and that every experiment was successful. In twenty-two cases he desired to produce females, meeting with success in every case; in the seven experiments he desired to produce males, and in these he succeeded equally well.

If Mr. Cornax reports correctly, it would seem that the Professor's theory is not without foundation. It is very easily put to the test, and we doubt not that it will soon either be established or exploded. We ought to say that Prof. Thury is, himself, of the opinion, that it can only be relied on where the animal is running out, and in a normal condition.

"GOLD MINE"—Bred by William R. Sanford, of Orwell, Vt., and now owned by A. F. Knox, of Whitewater. See advertisement for description and pedigree.

Recipes—"Wonderful Liniment."

MR. EDITOR:—I am in want of a receipt to dress sheep-skins, dog-skins, and all kinds of pelts, with the hair on, the hair to stick tight, and the leather to be soft and pliable. Will some one of your numerous readers please give a receipt, through the FARMER, and oblige a subscriber? In exchange I will give a good receipt:

WONDERFUL LINIMENT.

2 oz. Oil of Spike,
2 oz. Origanum,
2 oz. Hemlock,
2 oz. Wormwood,
4 oz. Sweet Oil,
2 oz. Spts. Ammonia,
2 oz. Gum Camphor,
2 oz. Spts. Turpentine.

Add one quart of proof spirits, 95 per cent., mix well together, and bottle tight.

The above liniment is good for sprains, bruises, lameness, &c. In fact, it cannot be equaled, and is actually worth one hundred dollars to any person who keeps valuable horses. Omit the turpentine, and you have the best liniment ever made for human ailments, such as rheumatism, sprains, &c. Try it. H. W. HUDSON.

FOND DU LAC, February 29, 1864.

Catarrh in Sheep.

MR. EDITOR:—Will you, or some of your correspondents or contributors, give me, through the columns of the FARMER, a cure for a kind of catarrh, which has made its appearance in my flock of sheep. On going to my yard, in the morning, I notice that as they get up they wheeze, cough, and blow, with a nasal discharge, which is truly sickening. I have a fine flock, which is in good condition, and should like to rid them of this complaint, as they are a profitable investment. J.

EVANSVILLE, July 18, 1864.

THE BEE-KEEPER.

Which is the Best Time?

So often is this question asked by those who seem to be seeking some sort of a "trap," or device, by which they can, with the greatest facility, rob the bees of their precious stores, that I sometimes say, that the best hive for them is the common box, with main room for breeding, and chamber above for surplus honey beyond their greatest possible need, and simply for the reason that any greater facilities for taking away the only means which this little

model of industry has of preserving life through the long period of inactivity from October to May—almost two thirds of the year—may result in total loss of stock. Indeed, there seems to be a period of bitter experience, with nearly all new beginners, with improved bee-hives, like the boy who first begins to handle sharp-edged tools. But what efficient workman will do without good tools? Just so with the intelligent bee-keeper. When once inducted into the "mysteries," with an understanding of those principles which are based upon the constitution of the bee, then the valuable points of a hive are easily seen, and the tendency to rob the stock of necessary stores will prevail far less. Then the facts are no longer mysterious, and a hive will be valued, not from its complications and troublesome contrivances to force the bee from its natural habits of life, but will be valued for its simplicity and durability, combined with its adaptation to the *real wants* of the bee, and the most *convenient control* and handling, for the different operations connected with non-swarming, increasing, transferring, strengthening, and renovating.

With these remarks, I will leave this subject for the present, by asking you to publish the following, from the *Country Gentleman*, giving some of the *objectionable features of bee-hives.* J. C. P.

"Slide and hinge doors, shutters, and the like, that are constantly liable to swell, shrink, crack, warp, and get out of order, are very objectionable in a bee-hive.

Dividing hives, unless accompanied by movable frames, are a nuisance. If the movable frame is used, they are entirely unnecessary.

Sliding and movable bottom-boards will, sooner or later, furnish hiding-places for the moth-worm, and are unnecessary with movable frames.

Hives that are taller in front than at the rear, or *vice versa*, are ungainly and unmanageable in many of the operations necessary to be performed with bees.

Expensive contrivances to render hives "self-cleaning" are superfluous, as a slight inclination of the bee-stand will enable the bees to keep the bottom-board clean.

Hives containing less than 2,000 cubic inches in the main, or breeding chamber, are too small for the average of seasons in lat. 43° north.

A hive that does not provide good top ventilation, is not fit to winter bees in, in this cold climate. One that does not provide good ventilation in the summer wastes the time of the bees, by causing them to lie idle outside of the hive.

High hives, subjecting bees to the annoying and toilsome labor of climbing long distances through the ranges of clustering bees, to get to the surplus boxes, will give their owners very little cap honey. Any hive that does not furnish easy and free access to cap boxes should be rejected.

Surplus boxes should be over the breeding chamber, and not at the sides, as in many hives. Heated air rises, and that from the breeding chamber should ascend freely to the cap boxes, to enable bees to keep up the requisite temperature for comb building.

Any hives that furnish cracks, crevices, or obscure places of any kind, for millers and worms are an abomination.

Costly and complicated contrivances are not wanted. It is desirable that a hive should be as simple and cheap as possible, and at the same time answer the ends of bee-culture. Profit is the object. No man wishes to sink all his bees will gain, in the purchase of costly patent contrivances.

If a hive is not a complete and perfect protection to the family that occupies it, from storms and other vicissitudes of the weather, without the intervention of a bee-house, give it the cold shoulder. It should be complete within itself, so that it can be set in any part of your grounds. Bee-houses are a relic of the past.

A hive that does not give good facilities for feeding bees should be rejected. One with an entrance not easily adjustable is not desirable.

An infallible non-swarmer, without careful watching and superintendence, is a myth. The movable frame hive is the only one that can be made perfectly useful.

Transferring Bees.

MR. EDITOR:—I noticed in the June number of the FARMER a description, by J. C. Plumb, of his mode of transferring bees. Now, I think his plan is all right, and is the only true way to do it, except in one particular. I think I have a way of fastening the comb into the frames, that is worth two of his. First, fit the comb to the frames, as near as may be; then, with a gimlet, or bit, which is better, because more speedy, bore

through the sides of the frame, choosing such places, as much as possible, where there is no brood; then drive some pins, made of pine, through the holes, into the comb. In this way, you destroy little or no brood, which you must necessarily do by the use of the strips, across and over the comb, as Mr. Plumb recommends.

D. HOWARD.

WEST POINT, WIS., June 22, 1864.

THE HORTICULTURIST.

A. G. HANFORD, CORRESPONDING EDITOR.

To Grow Large Currants.

A correspondent of the London *Floral World and Garden Guide* says: "On going through Covent Garden Market, last summer, I was much struck with some very large currants—black, red, and white. They were exposed for sale in small, round baskets, in the central avenue, and the price, I think, was one shilling per basket. They were intended for dessert. It would be a very great gratification to me to be able to produce currants as large as those, and I do not see why I should not be able to accomplish it, if you will give me a little assistance. Pray let me into the secret of the mode of culture I must pursue to obtain black currants, red currants, and white currants, as large as those which I have mentioned." To which the editor replies: "There are two grand points in the production of those magnificent bunches of currants which make visitors to Covent Garden dissatisfied with what they have at home In the first place, the varieties are peculiar, and it is their nature to produce large bunches of large berries; in the second place, the growers spare no pains to bring them to perfection, and secure all the high qualities characteristic of the varieties grown. To grow these currants, make the plantation in an open, sunny position, on a stiff, well manured loam; plant the trees five feet apart each way, and annually, in autumn, trench in a dressing of half rotten dung between the rows, and in such a way as not to damage the roots of the trees. While the trees are small, kitchen crops may be grown in the mid spaces; there cannot, in fact, be a better place for cauliflowers and lettuces. At the autumn pruning all the young shoots are cut into two inches, so that the plantation looks unsightly until the trees begin to grow again."

Bark Lice.

THE following suggestions and results of observation on the part of Mr. Cover, the able editor of the paper from which they are copied, are worthy the attention of all fruit-growers:

"Early last spring, it may not be forgotten, we claimed to have made a little discovery: that the bark lice had been, in large part, if not completely, destoyed by the extreme cold or sleet and cold of January last, of which we wrote and published an account. At that time we called the attention of the public to this matter, thinking that possibly the destruction of this insect might be confined to the vicinity of Lancaster, or that we might be mistaken as to the extent of the destruction. Several examinations since with the microscope but confirm what we have already written upon the subject, only better: that from the limbs of apple trees about town which we have examined—trees that have been for years as full as they could bear—we have not been able to find a single surviving louse. The other day, Capt. Clark and ourself examined his orchard, for years infested, and we could not find a living louse, an egg of one, or other evidence of their existence, except the empty, deserted cells of the once existing race. Nor upon upon the limbs could we discover the existence (usual at this time of year,) of a new litter of lice.

We again call the attention of people throughout the country to this matter, as it may be that the destruction is entirely or partly local, or that some action has taken place here, and not elsewhere. And it may be, too, that the destruction was otherwise caused than by the extreme cold. The destruction of this tribe of insects, if general, must prove of inestimable value to the fruit." —*Grant County Herald.*

Dianthus Chinensis Lainitus.

This is one of the most beautiful varieties of the splendid genus *Dianthus*, which embraces the Sweet William, the Carnation, and many other showy and popular perennials. The flower is magnificent, as will be seen by the engraving; double, very large; petals deeply serrated; colors splendid. James Vick, importer of choice flower and vegetable seeds, Rochester, New York, has produced some of the finest specimens ever seen in this country.

Protection of Fruit Gardens.

At a recent meeting of the Fruit Growers' Society of Western New York, some discussion was had on the subject of *protection*. We copy as reported for the *Rural New Yorker*.

H. N. Langworthy —My experience has taught me some of the advantages of protection. I should protect by a barricade - say a fence six feet high. For grapes, especially, is such a protection advisable. If I could not wait to grow a protection, inclos-

ing an acre, I would build a fence, and divide the acre every two or three rods with similar fences, on which to grow grapes. These fences are the places on which to grow *fine* grapes. Meantime, I would plant shrubs, of some suitable kind, around the outside, for permanent protection I would have the dividing fences run east and west.

B. FISH.—I think these fences would shade the balance of the ground badly—too much to be profitable.

J. J. THOMAS.—In New Jersey, recently, I saw belts of evergreens twenty feet high, and within a certain distance of these belts—the distance being the range of their protection—the crop of grain, grass and fruits was fifty per cent. greater than beyond that range. I think the Norway spruce is the best tree, perhaps, for protection. I believe that twenty years hence it will be wondered that fruit growers of the present day did not know mo e about protection.

MOODY.—We can get Norway spruce, plenty of them six feet high, and they are easily transplanted. I should prefer them to the board fence. I think we have got to protect if we may hope to grow peaches. The protected orchards bear. Early in the history of the country, when there was protection, we grew peaches. I agree with Mr. Thomas, that twenty years hence people will wonder that we knew so little about protection.

H. E. HOOKER.—I suppose we can obtain good results, practically, by planting screens. But just how far it is best to go—how much protection is desirable and profitable I have not determined to my own satisfaction. Fa l-ures sometimes occur with complete protection

THE PRESIDENT.—It is demonstrated that protection is needed. We need it in spring, when vegetation is just starting. The shelter which a town affords insures crops of fruit in our town yards when the farmer's crop fails utterly. Evergreens are a better protection than deciduous trees.

FROST.—I wish to ask if the interior of an orchard produces better than the outside rows—if the protection the outer rows afford insures a crop on the inner trees.

HOOKER.—In the case of peaches, we know it to be a fact that the trees on the sides of the orchard opposite to that from which the prevailing winds strike it, produce better.

JAMES VICK.—In the West, on the prairies, I was often told that the outside rows of orchards, exposed to the winds, were of little value except as affording protection to the balance of the orchard—especially those on the south sides, which were exposed to the prevailing winds. There is no doubt that deciduous trees are a winter protection. All who have traveled beside or through a forest of deciduous trees in winter know them to be so.

MOODY—The south and east sides of my orchard bear most fruit. Indeed, the north and west sides bear because the varieties planted there are hardy, and bear anywhere.

LANGWORTHY.—The north and west sides of my peach orchards do not bear fruit. Protection is necessary; and there is no doubt that the orchard is a protection to itself.

This subject of protection to orchards and fruit gardens is not understood and appreciated in Wisconsin as it should and will be before the *best* results in fruit growing are attained. A. G. H.

Don't be Humbugged with Dwarf Apple Trees.

A good deal of inquiry has been made of us lately as to the utility of cultivating dwarf apple trees. We tried a few trees in 1855, and the result, with other observations, has convinced us that the dwarf apple is a consummate humbug. Mr Samuel Edwards, of Illinois, gives a bit of his experience, which may be of some service to those who may be inclined to try the dwarf apple. He says:

"I have had them for a long time, and would not take one hundred of the best dwarf apple trees I ever saw as a gift, and plant them in an orchard for growing fruit to sell. In a small city lot, having room only for a little bush, they are often desirable, but are short lived at best."

To what Mr. Edwards says, Mr Dunlap, of the Illinois *Farmer*, adds:

"We put the above on record to confirm what we have often said in regard to the dwarf apple trees on the prairie. The tree peddlers are flooding the country with thou-

sands of worthless trees, recommending them for orchard purposes – a base swindle on the credulity of the farmers; for we do not believe that there is a nurseryman or tree dealer but who knows that for an orchard they are of no value. If people want trees that will bear in a short time, let them buy low headed trees, of such varieties as Keswick Codlin, Cooper's Early White, Yellow Injeetrie, Snow, Ramsdell's Sweet, and Stannard, which will distance the same varieties on Paradise or Doucin stocks. We suppose humbugs must have their day, but we submit that this dwarf apple has had all that it is entitled to at the hands of old fogies."—*Iowa Homestead and Horticulturist.*

Appeal to the Fruit Growers of Wisconsin.

In the face of many discouragements, the State Agricultural Society are completing their arrangements for another Fair, this fall, and, as has before been published by the Secretary, have considerately entrusted the immediate direction of the Horticultural Department to the Wisconsin Fruit Growers' Association

Now, a few words to fruit growers and nurserymen will, I trust, be kindly taken, when we consider that our interests demand a hearty co operation in this enterprise.

We may plead "poor crops," and poor prospects," but not more so than every other department of agriculture; and we may, if we will, bear our part with profit and honor to ourselves, and great good to the State at large.

How to do it? is the question you ask. Now, in answer, it is true that the fruit crop is light, compared with previous years of great abundance; but, in the aggregate, we undoubtedly have as much, and as many varieties, as in some years of apparent abundance. In 1854, at the exhibition of the Fruit Growers' Association, in Milwaukee, there were seventy-six entries of apples, pears, plums, peaches, grapes, and quinces, including some 1,400 specimens of apples and pears, or 150 varieties of the former, and 34 of the latter, and only 10 varieties of grapes. Why, in the single item of grapes alone, if fairly represented, we can outdo the entire show of that first year of the Association, and with a little exertion on the part of the friends of the cause, we can *fill up* the department assigned to us with specimens of the new and old varieties found valuable by the last ten years' experience; then add the many valuable fruits grown without name, or misnamed, which will or should be presented for the action of the *special committee to examine and name.*

Then, again, the show of flowers, specimen evergreens, and fruit trees: may it not be unusually full this time? It undoubtedly will, as that will, of all places, be *the place to show,* for thousands will go there to see.

On the question of profit, that base of all popular action, now-a-days, who can doubt the result.

Every exhibition of this kind has resulted in abundant reward to the contributors; or, if any have felt it a poor speculation, let me assure them that every such exhibition has been worth thousands of dollars to the State at large, in bringing out the relative value of different varieties, and enlightening the public on the important interests of fruit growing.

To insure a full show, and direct results, I will propose the same plan for every part of the State that has been proposed to several local societies and individuals; which is, that in every locality some one or more persons should assume the duty of collecting choice specimens of fruit, and forward them to the care of the Secretary of the State Agricultural Society, with full list of, and description of tree, and location on which they grew. It will be better, in every case, to bring the specimens in personally; but where that cannot be done, let them, by all means, be sent. County societies can very easily preserve their specimens, and present as a collection, through their secretary or agent.

But, in every case it is essential that names and descriptions should be preserved. Small slips, with name or number pasted on, will answer, if carefully handled.

Let all specimen trees or plants be carefully lifted or cut, and fruit trees have their leaves stripped and roots carefully packed, that they may be fresh and fine.

Brother fruit growers, it rests with you, now, to make the exhibition a complete success, or a failure. If your efforts shall fully second that of those in immediate charge, there will be no cause of regret on the part of those who come to learn and show, for sacrifices made.

Yours, truly, J. C. PLUMB.

P. S.—Any collections or specimens left at the FARMER office, in Madison, to my care, will be properly forwarded to Janesville, without expense to the exhibitor, and duly entered, if desired, on the regular terms. Contributions are solicited from Dane County in this way. J. C. P.

Horticultural Hints.

ORCHARD.

Pruning.—This month, and early next, is the best in the whole year for heavy pruning, as the growth has mostly matured, and has returned to the root its elaborated nourishment, and still there is time for the fresh cut wood to harden and commence healing before winter frost.

Cultivated orchards now show by growth and vigor that it *pays to plow.* Now is a good time to manure and plow, if you cannot do it in the spring. Clear away all rubbish and grass from the trees, to prevent mice from quartering for the winter near them.

Nursery trees should, by the last of the month, be in trim for the market, but no heavy pruning should be done on very vigorous trees that will be likely to start out a new set of suckers or late sprouts.

Evergreens should receive their last summer pruning early, to gain symmetry. Root pruning of evergreens, and other trees and shrubs, can be done early this month, for the purpose of ripening up the young growth, preparatory to lifting for replanting or sale; also, to mature for winter, in strong, loamy soils, where late growth is dangerous.

Budding of late growing roses, quinces, peaches, and even some thrifty apples, can be done early this month. Attend promptly to labelling, staking and registering fruit trees, and plants of all descriptions, as by fruit, flower and foliage you can now distinguish the varieties. When once properly booked, you will find it very convenient to refer to it. Especially fruit growers who have choice varieties they wish to propagate or to name, should preserve a full description of tree and fruit.

Tie up and preserve specimens, as recommended in the last number, and do not fail to exhibit them at your county and State fairs. Early fruits can be preserved by wrapping in paper and keeping in a dry, cool place, or sealing in jars, and burying in the ground. They should be picked a little before maturity.

FALL PLANTING.

By the middle of September small fruits, such as currants and gooseberries, can be planted if the ground is moist, and if done with care, they will winter finely, and grow as well as if not moved. The plan of putting off this work until the warm weather of late spring results in loss, oftentimes, of the best of stock, or at least of the season's growth. Bulbous and tuberous plants, which generally mature their foliage early, such as the dielytra, peonia, lily, tulip, daffodil, and crocus, should be planted as early as possible. These are propagated by dividing the roots and by offsets, which should be done early in autumn.

Everything transplanted now should have the earth well heaped over and around them, and, as winter approaches, mulched with chips or straw.

Stake and register everything.

Cuttings and *scions*, for future use or immediate planting can be made now from well ripened wood. Trim off the leaves and unripened wood, and bury in the earth.

Tender roses, and many other woody shrubs, if well buried before the severe weather, will winter perfectly.

THE GARDEN

is apt to be neglected, now, when a little more labor in cleaning out the last growth of weeds will double the crop of roots, especially the late growing carrots, parsnips, beets, &c.

Do not allow the potatoes to be frosted,

but the later they can remain in the ground the better, if dug when dry. Keep all roots dry after harvesting. Put potatoes in large piles, and other vegetables in small piles, or long ricks, with plenty of dry soil among them, if to be kept long. Cover lightly with dry straw and earth around the base, leaving plenty of air-holes near the top, for steam to escape.

Beans should be pulled and stacked before they are frosted or they will shell. Stack around a strong stake, set convenient to the rows; lay around loosely, tops out, as fast as pulled; and they will cure finely.

SEED SAVING

is one of the most important labors of this month. Select the best ears of corn, trace up and hang in shed or chamber, where there is no steam from below, but never over a hay-mow or stable. Watch carefully for garden seeds, as they ripen in succession, or the birds and storms will deprive you of them. If not desirable to thresh them immediately, they can be put in thin sacks, loosely, and hung in an airy place until winter. In some safe and convenient place set up a large box, and upon cleats, put across laths, spread papers, upon which seeds can be spread to dry. For flower seeds, paper bags can be used for storage, leaving the end open for air. All seeds should be dried in the shade, and some will not bear drying at all, as the plum, and other stone fruits. Also, the nuts: they should be mixed with fresh earth, or sand, and buried until planted.

J. C. P.

The Snap-Dragon.

BROOKFIELD, June 16, 1864.

MR. EDITOR:—I wish to inquire, through the FARMER, the best method for killing snap-dragon, as there is considerable of it in this part of the country.

Yours, &c., CHARLES HART.

HORTICULTURISTS, don't forget the State Fair.

MECHANICAL AND COMMERCIAL.

The Universal Clothes Wringer.

The engraving which we give below illustrates one of the most useful inventions of the day. The sewing machine has rendered a larger service, perhaps, to the women of the world than any other invention, whether of former or more modern times, and the clothes wringer is hardly less important. Indeed, in many cases, it is even more valuable, for the reason that it is a substitute for that which women most lack as a qualification for such laborious service, to wit: muscular force.

THE WAY IT USED TO BE DONE.

THE WAY IT IS DONE NOW.

Washing is hard enough, in all conscience; but when, with great effort, that labor has been performed, and the physical energies of the housewife or maid have been pretty well exhausted, none but she can fully appreciate how truly a god-send is the simple machine which steps in at that moment, and converts a miserable drudgery into a pleasurable recreation. The illustrations on the preceding page will tell the story better than we can.

Some time ago, when the proprietors of the Universal Clothes Wringer advertised with us, we very cautiously and reservedly noticed it editorially. The agent at Madison was hardly satisfied, and even complained that our endorsement was not more unqualified and cordial. We then *knew* but little about the machine, either from personal observation or from reliable reports of those who had tried it, and could not, therefore, conscientiously say more than that we *believed* it to be well adapted to the end proposed. Since then we have purchased and presented one to one of the most competent housekeepers in the State, and Mrs. Hoyt has likewise put one upon trial in our own house. The result has been so warm an enthusiasm on the part of these and other ladies who have tried the wringers, that we feel in duty bound to publish its praises as widely as possible; and this we do without a word of solicitation on the part of those who are pecuniarily interested in its popularity.

Its great practical value may be stated under the three following heads:

1. It saves muscular strength.

2. It greatly diminishes the wear and tear of clothes.

3. It saves time.

There are other patents, but as this is the only one supplied with a *cog-wheel* regulator—a very important provision—we give it the preference.

MECHANICS, remember the State Fair.

MISCELLANEOUS.

Notables Whom we Saw in Europe.

NUMBER III.—SPURGEON.

The church-going public of America would hardly forgive a respectable foreigner who, spending a month or two in New York, would not take the trouble to at least once hear our greatest pulpit orator. And so by the same rule we should not have dared to leave the shores of Albion with the hope of English pardon had we not seen and heard the distinguished Spurgeon.

We had often tried to read his sermons, but rarely got through one of them in the full possession of patience, or without the feeling that the reason of his great popularity was not to be found in the quality of his thoughts, and were therefore all the more curious to sit under his preaching.

But how to do it: for not every one who desires it can hope for a seat in the vast "Tabernacle," where the multitude throng to hear this most noted living pulpit orator. One must have *tickets*, no less than if he were going to a theater or a circus. Our host enjoyed the friendship of one of the deacons, and the tickets were forthcoming.

The Tabernacle is on the east side of the Thames, and some miles lay between us and it. Twice we had planned to go over, but circumstances prevented. Services were to commence immediately after 10 o'clock. Were there at a quarter before nine, and already there was an immense throng of eager people about the iron gate leading into the court in front of the temple. Most of them were non-holders of tickets, waiting until their more fortunate neighbors had been seated, when the doors were to be thrown open to any who might find a chance seat, or a foot square of space in some of the aisles, in which to stand.

The number of our tickets directed us to the second gallery, which, with the aid of a polite sexton, we reached by winding stairs and bridges of iron.

What a spectacle! An immense edifice, with two deep galleries all the way round—giving the interior the form of an ellipse—and capable of containing seven thousand

worshipers, every nook and corner of it being literally and rapidly packed by the anxious multitude, who enter from every point of the compass, through the numerous doors with which the Tabernacle is supplied. For thirty minutes there is a pattering of some thousands of feet, the rustling of silks, the beckoning of ushers, and the click of seats unfolded from their fastenings against the ends of pews, in all the aisles. At last every available inch of space is occupied. The hour sacred to divine service has come, and every eye is watching the plain table upon which rests the Bible, at the front of the further end of the first gallery. In a moment a door opens at the further extremity of this gallery, and a rather short, rotund, plump, beardless, beefy Englishman with some difficulty makes his way to the platform. Thousands of eyes familiar with the face kindle with satisfaction, and a half-suppressed murmur of delight runs through the house. It is Spurgeon. For an instant his bright and genial eye glances over the vast concourse below, around, and above him, and then his hands are lifted in prayer.

The first utterance was enough to reveal, in part, the secret of his power: "Father in Heaven, we bless thee for this golden morning, and for the millions of true worshipers who will this day make offering upon altars inscribed to thy holy name!" Poetic, philanthropic, devout. The manner, too, was most impressive, making every word to sink into the hearts of his hearers.

The sermon was intended to inculcate the practical value of religion in the daily life of the people. It was delivered without notes, and in the simplest style of earnest, impassioned eloquence. As a rule, his thoughts were not eloquent in the highest sense, but they were put forth in such unusual and forcible language, and in so earnest and sincere a manner, and with a voice so flexible, rich, and musical, that the attention of every auditor was rivited to the speaker.

Another, and perhaps the only remaining secret of Spurgeon's power was discoverable in the character of his congregation, which is evidently made up almost entirely of the upper stratum of the lower class, and the lower stratum of the middle class of the people. Before a Boston audience he could never have made the popularity he now enjoys.

His style is decidedly dramatic, and his language plain, simple, and popular.

As a worker, Mr. Spurgeon has few if any superiors. Besides preaching twice on Sunday, and once on Thursday night, and holding prayer meetings on Monday nights, he finds time to visit the multitudes of his flock, to look after the great Sabbath schools that belong to and are offshoots of his church, to watch over the theological institute established by him for the education of young ministers, and finally to write books, of which he has already published a number. If so much has been accomplished ere the attainment of his thirty-fourth year, what may not be the summary of his good works should he be permitted to round out his years to the full measure of three score and ten?

The Wheat Crop in Wisconsin—Change of Seed--New Varieties.

Certain farmers, dissatisfied with the varieties they have been growing, and inclined to believe that a change of seed would be beneficial, have asked us to name varieties grown in Ohio with success, and the parties of whom seed could be obtained. The following letter, from Secretary Klippart, of the Ohio Board of Agriculture, and author of "The Wheat Plant," answers these questions very explicitly:

STATE AGRICULTURAL ROOMS,
OHIO STATE BOARD OF AGRICULTURE,
COLUMBUS, O., Aug. 29, 1864.

J. W. Hoyt, Esq., Madison, Wis.:

DEAR SIR:—Yours of the 24th inst. has been received. Our farmers here are growing the "White Purkey," (see Ohio Agricultural Report for 1857, page 754, where it is called "Pirk,") and the "Tappahannock," a new variety, introduced from the Pamunkey, in Virginia. John L. Gill, of this city, can furnish you the Purkey, and G. S. Innis, also of this city, can furnish the Tappahannock. They are the best varieties I know of for commendation as new and excellent varieties.

The prospects are very cheering for a capital good Fair. Yours, truly,

JOHN H. KLIPPART, Cor. Sec.

CROTCHETS are very well in a music book, but bad in people's heads.

Brig. Gen. James S. Wadsworth.

The country will have occasion to deplore the loss of few abler men, and none more noble and patriotic than he whose fine portrait stands at the head of this page.

Born of honorable and wealthy parents, in 1807, educated at Harvard and Yale and in the office of Daniel Webster, inheriting extensive patrimonial estates, and possessed of exceedingly popular elements of character, there seemed to be nothing in the way of the attainment of any object upon which he might fix his ambition. His tastes, however, did not lead him into the sphere of political life, and so up to the time when the war of the rebellion called him to the noble work of the patriot soldier, he had quietly devoted himself to the management of his own immense estates, to the education of his children, and to the social and material progress of his State and country.

Of Scotch descent, and having numerous relations in the land of his fathers, he had spent much time in that country, and by virtue of his large personal influence there was enabled to do much towards correcting the popular prejudices against the Government of the United States.

He was always a warm friend of industry, and one of the most zealous patrons of the agricultural organizations of his native State.

When the war broke out it found him one of the wealthiest men on the continent, and in the midst of a family whom he loved with a more than common tenderness. But what to a man of his purity of patriotism and loftiness of purpose were all these ties? He consecrated them all—property, family, and friends—to the cause of his country, and at the battle of Bull Run was found, sword in hand, a volunteer aid of McDowell, doing everything within the power of his own skill and noble daring to tread down and overwhelm the foes of the Republic.

In August, 1861, his high qualities were recognized by a commission as Brigadier

General of Volunteers, and in March, 1862, he became Military Governor of the District of Columbia.

In the following November his name was placed before the people of New York as the Union candidate for Governor, an office to which he did not himself aspire, but for which he possessed the highest qualifications.

In December, 1862, he was assigned to the command of a Division of the Army of the Potomac, and immediately took rank among the ablest generals of that veteran army. We saw him at Acquia Creek, immediately after the battle of Chancellorville, and shall never forget the deep and touching earnestness with which he deplored that great disaster to our arms.

He fell in the fierce battle of May 13th, 1864, heroically leading his division against one of the strongest positions of the enemy.

Prof. Charles H. Cleaveland.

It is natural, in the present condition of society, and especially in a time like this, when traitor hands are clutching for the life of the nation, that dazzling feats of arms should eclipse, for a time, the equally important but less demonstrative achievements of even braver and nobler men in other departments of the public service. It is with a view to contribute somewhat to a correction of this error of the popular enthusiasm that we devote a few paragraphs to a sketch of the life and services of the learned scientist and noble patriot whose name stands at the head of this memoir.

Prof. Charles H. Cleaveland, A. M., M. D., late Surgeon in charge of Officers' Hospital and Gangrene Hospital, at Memphis, Tennessee, was born at Lebanon, New Hampshire, and educated at Dartmouth College, from which he graduated with high honors, in both the literary and medical departments. For several years he practiced the profession of his choice with eminent credit; and finally, after devoting some years to the investigation of mental diseases, and visiting nearly all the insane hospitals of the country, with a view to determine improved methods of treatment, he removed to Cincinnati, in answer to a call from one of the most flourishing medical colleges of that city. His thorough acquaintance with the natural sciences made him master of his department—that of Materia Medica and Therapeutics—and for years he lectured, with remarkable success, to large classes of students, at the same time attending to a large practice, editing and publishing, with marked ability and success, the *Journal of Rational Medicine*, and giving to the public many valuable monographs on medical subjects, a Pronouncing Medical Lexicon, and two or three other works of some magnitude. But surgery was his favorite branch of medical science, and when the war broke out, he gave himself, at the earliest practicable moment, to his country, and was immediately deputed, by Gen. Sherman, who had a high appreciation of his abilities, to create, at Memphis, an Officers' Hospital. After organizing and presiding over that institution for a time, he was authorized to establish and superintend a hospital for the special treatment of cases of gangrene.

In this new position, by his indomitable energy and scientific skill, as well as by heroic sacrifices for the comfort and restoration of the soldiers placed in his charge, he won great distinction, and was more than once highly complimented in letters and orders issued by the Surgeon General of the United States; while his record of cases, and of investigations and experiments made under his direction, constitute invaluable contributions to medical science, and entitle him to the grateful and lasting remembrance of the faculty whose profession he so much adorned.

With a constitution somewhat impaired by years of the most extraordinary and unremitting labors, he was unable longer to bear the severe trial of his vital powers necessarily involved in the discharge of his arduous and hazardous duties, and on the 1st day of December last, after a very brief illness, he passed from the scene of his labors to his heavenly reward.

In many respects Dr. Cleaveland was a re-

markable man. Vigor and keenness of intellect, enthusiasm, determination of spirit, persistency, and great executive ability, were prominent characteristics; but his crowning glory was a nobleness and loftiness of purpose to use all his powers for the largest good of his fellow men. He felt before his last fatal illness that his life was in serious jeopardy, but no entreaties of friends could induce him to regard his own safety when there was a soldier of the Union to plead for his help. And so at the early age of 45, in the prime of his manhood, and in the fullness of hope, the patriot and hero has fallen. In his death a most estimable wife has lost a devoted and noble husband, the cause of science an able and worthy promoter, the soldier a self-sacrificing friend, and his country a true patriot. Living, we loved and honored him; dead, we shall ever revere and sacredly cherish his memory.

THE HOME.

HEALTH AND DISEASE.

[From the Herald of Health.]

"What Shall We Eat?"

BY MRS. M. M. JONES.

[Continued.]

Now for the pies. Quoting from the article she was criticising, "Pies are another American abomination," our "Farmer's Wife" says, "Well, strike them from the list. What an awful chasm in the cook's resources!" My dear, good woman, pray do not jump at conclusions too hastily. Because pies, as usually made, with their greasy, lard crusts, their spices, &c., *are* one of the greatest "abominations" of modern cookery, that does not signify that pies *may* not be made very nearly as wholesome as bread, and at the same time be really delicious. How, do you ask? That is precisely what I was going to tell you; and here let me whisper a word in your ear. Do not be discouraged, nor condemn hygiene's cookery, if you do not succeed in your first efforts at pie or bread making. Remember, you made many failures in your first attempts at ordinary cookery, even with practical instruction from your mother to help you. A little patience and perseverance will soon crown your efforts in this direction with complete success, and you will then be amply rewarded.

To return to our pie making. Take equal parts of Graham flour, fine flour, and corn meal; or you can, if you prefer, use all *canaille*, or all white flour; wet it with nice, rather thin sweet cream, making it slightly stiffer than ordinary pie-crust; roll very thin, and you have a crust which, when baked, is so light and flaky, that I have heard many persons say they did not think they could ever again relish the pie-crust in common use, this is so much sweeter and more delicate. For the inside of your pies, any kind of fruit ordinarily used in pie-making is at your command; and, leaving out all spices, and with no seasoning but sugar, you will be enabled, after a few experiments, to produce pies sufficiently palatable for any one.

Then there is a wide range of puddings from which to choose, any and all of which can be made both wholesome and excellent, with no ingredients aside from the material itself, excepting milk, sugar, and raisins.*

As to cakes, the variety is but limited, as being deleterious things at best. But few experiments have been tried in this direction. A few kinds, however, are admirable. *Sponge* cake, made of 2 eggs, 1 cup of white sugar, ½ cup of sweet cream, and flour sufficient to make a *thin* batter, is *very* nice, and comparatively wholesome. *Jelly* cake, made of 3 eggs, 1 cup of white sugar, and flour sufficient to make a batter not quite as stiff as common "*Jelly*" Cake, and baked, and spread with currant, apple, or any other kind of jelly, in the same way as Jelly Cake is usually baked, is quite as nice as that where soda, saleratus, and all other "fixins" are used. Molasses Cake, made of 1 cup of molasses, 1 cup of thick, sour cream, 1 tea-spoonful of soda, and flour sufficient to make a rather stiff batter; or Sugar Cake,

* To give full directions for all of these is impossible within the limits of a magazine article; but if our "Farmer's Wife" desires to learn more fully, I would say, a little cook-book, soon to be issued by R. T. Trall & Co., No. 15 Laight street, New York, will furnish her with all requisite information.

made of 1 cup of sugar, 2 eggs, ½ cup of buttermilk, ½ teaspoonful of soda, ½ cup of English currants, and flour enough to make it about like common Cup Cake batter, are not so very objectionable, compared to the cake in common use.

But still, in hygiene's cookery, mushes, puddings, &c., should be used mainly in place of cake. Rice, Indian, and many other kinds of pudding, baked in the forenoon, and served up cold for supper, are nice; cracked wheat is a dish which is almost universally relished, wherever it has been introduced; while boiled rice, corn starch, farina, hominy, &c., are all excellent, and form, for su per or breakfast, very passable substitutes for cake.

But FRUIT is *the* essential requisite of a hygiene's table; and all efforts at dietetic reform which ignore this fact will be, almost without exception, *failures*. And until our farmers turn their attention more to fruit-raising, which they can easily do, if they choose—until they come to consider a fruit-garden a *necessity* instead of a *luxury*—reform in this matter will be, for their wives, an up-hill business. I am aware that at the West, owing to the comparative newness of the country, the larger fruits, such as apples, pears, &c., are difficult to procure in abundance; but many of the smaller fruits, such as strawberries, raspberries, blackberries, currants, gooseberries, &c., can be easily cultivated, in sufficient quantities for an ample supply during the entire year, if preserved, as they may readily be, by canning and drying. I have a friend, living upon the prairies of Illinois, who, last season, raised seventy-five bushels of strawberries, and with very little labor, save that bestowed upon the first planting.

As far as the canning of fruit is concerned, if a farmer is able to hire from "six to sixteen" hands to help him, he can afford at least two girls to assist his wife, (and if he *will not* do it, he doesn't deserve to have a wife,) and with that assistance any woman of ordinary capacity and strength can put up an ample supply for the year. A farmer's wife of my acquaintance, nearly sixty years of age, with a family of six to do for, and with only a little girl of eleven years for help, last year, during the blackberry season, put up two hundred quarts of blackberries, and said she could easily have put up a thousand, if she could have procured the cans in time.

Canning fruit, to those who have never tried it, seems like a great undertaking: but there is a method by which it may be done, which is easy, simple, cheap, and perfectly safe. Out of hundreds of cans which we had put up in this manner last year, not one has been lost, and we have them now, in June, as perfect as at the hour they were canned. The following is the method employed, and, as far as our experience goes, it is preferable to all others. No corks are used; the cloths will answer a second year; and, as soon as the bottles are cold, a glance suffices to tell whether they are air tight or not.

Take common wide mouthed glass bottles or jars; those with a rim around the neck are preferable; or, in a large family, glazed stone jugs, holding from one to two gallons, may be used. Procure thick cotton flannel, cut it into squares sufficiently large to cover the top and neck of the jar or jug; dip these pieces into heated grafting wax, made by melting together one pound of rosin, two ounces of beeswax, and one and a half ounces of tallow. After being kept hot a little time, this will harden slightly; a little more tallow should then be added. Several pieces may be put in at one time, and should be allowed to remain in until they are perfectly saturated with the wax, taking them out one by one, as wanted, about the time you begin to fill a jar with fruit, thus allowing them to cool a little. They can thus be handled with greater ease, and there is no danger of the wax running through them into the fruit.

To prepare the fruit, put it into a preserving kettle of some kind—a porcelain one is best—sweeten it with just sugar enough to fit it for the table; about one pound of sugar to six pounds of raspberries, blackberries, &c., is sufficient, while strawberries require one pound of sugar to four of berries. Add a small quantity of water, and cook the

fruit slightly less than if it were to be used immediately upon the table. Heat the bottles, to prevent breaking; this may be done by placing them underneath the stove, or else by putting them into a kettle of cold water, and gradually heating it. Pour the *hot* fruit into the *hot* bottle, filling it full; wipe the *top* and *outside of the neck of the bottle perfectly dry;* have ready a piece of white paper, cut so that it will just fit the *inside* of the mouth of the bottle, and lay it on the top of the fruit. Now you are prepared for the sealing process. Your pieces of cotton flannel being all ready, having been previously saturated with the wax, and allowed to cool a couple of minutes, place one of them over the mouth of the bottle, drawing it as tightly as possible, and then wind a piece of stout twine round and round, binding the edges of the cloth firmly against the neck of the bottle. Then, with a spoon, dip on a little of the hot wax, spreading it evenly over the top of the cloth, and over this place a paper large enough to cover the top and neck of the bottle, smoothing it as closely as possible, and your jar is sealed. As soon as the bottles cool, a glance will determine whether they are air tight or not, as if so, there will be a slight depression of the cover. The least hole "will prevent this concavity, and indicate at once the necessity of repeating the sealing process." If care be taken, not one bottle in forty but will be perfectly done at once, and after the first few bottles most persons regard canning fruit as less labor than drying it, besides being so much nicer and more convenient for use when wanted.

[To be continued.]

YOUTH'S CORNER.

Enigmas.

No. 1.—I am composed of six letters.

My 1, 5, 6, 6, is a nickname.

My 2, 5, 6, 6, is a small stream.

My 3, 5, 2, is a fluid.

My 2, 3, 5, 6, is a kind of bird.

My whole is a country in South America.

FRANK POWERS.

MADISON, WIS.

No. 2.—I am composed of seven letters, all of which may be found in a sentence no longer than this.

My whole is that which has been more talked of since the war than anything except the war.

No. 3.—I am composed of eight letters, each of which stands, and in the order of my making up, in the name of some important city of the Union.

My whole is that for which every loyal heart in the nation waits.

EDITORIAL MISCELLANY.

Ho, for the Fair!

The prospect is brightening. The draft-cloud is being cleared away, the Army and Navy are winning great victories, the people have a plenty of money, and everybody is bound to be at Janesville in the last week of September. That's right. The Society offers large inducements, the railroads are to carry passengers at half rates, property for exhibition *free*, and there is no reason why we should not have a grand Fair.

The Fair—Don't be Afraid to Show the Best you Have.

The season has been unpropitious, and many will be deterred from making any exhibition at all, because they fear their products will not compare favorably with those from other portions of the State. To such we would say, Don't forget that the drouth and the ravages of insects have been universal in the State. You stand on the same footing with the farmers of neighboring counties. Don't be afraid; bring out the best you have, and try to be glad if anybody else can beat you.

Conventions During Fair Week

Will be held in some of the public halls of Janesville, as follows:

On Tuesday evening, a Convention of Fruit Growers;

On Wednesday evening, a Convention of Wool Growers;

On Thursday evening, a Convention of the friends of Industrial Education.

The Annual Oration at the State Fair

Will be delivered on Friday, the 30th of September, by Ex-Gov. Joseph A. Wright, of Indiana. An able address may be expected.

Magnificent Fireworks!

H. P. Diehl, the distinguished pyrotechnist, is to make the finest displays of fireworks ever made in the country, at Janesville, during the evenings of Fair week.

Premiums Pro-rata.

In view of all the circumstances of embarrassment and difficulty unanticipated when, in February last, the List of Premiums was prepared, the Executive Committee of the State Agricultural Society have thought it prudent to provide that, in case the receipts of the Fair should not be adequate to meet the immediate expenses of carrying it through, and the paying off of the premiums as awarded, then the said pre-premiums shall be paid pro-rata out of the excess of funds in the treasury after said expenses shall have been paid. This proviso has been made by some of the strongest societies of the country, and is clearly a necessity with a state society unaided by the state government.

Our Grateful Acknowledgments

Are due to the Messrs. Hanford, of the Columbus (O.) Nurseries, for a box of beautiful apples;

To Mr. H. W. Hayes, of Palmyra, for a quantity of fine currants, a little later in the season than anybody else keeps them;

To S. G. Benedict, Esq., of this city, for a bottle of super-excellent black currant wine, manufactured by himself;

To Mr. J. C. Plumb, of Lake Side Nurseries, for a variety of delicacies, from his garden and the neighboring waters; and

To Mr. J. W. Sharp, of Door Creek, and a modest anonymous friend, of Stoughton, for boxes of beautiful honey.

A Fine Sample of Honey.

DOOR CREEK, WIS., AUG. 2, 1864.

MR. EDITOR:—I send herewith a box of honey. Commend us to the Italian bees for honey. I have one Italian stock of bees, from which I have taken eighty pounds of surplus honey, (in boxes like this,) up to the first day of August. Italian queens may yet be introduced for six weeks, or nearly that late. J. W. SHARP.

[The honey came to hand, and has been voted worthy of Italian or any other bees. Friend sharp is one of the best posted and practically successful bee-culturists in the State. We congratulate him on having been able to set so good an example in this interesting and profitable branch of husbandry. If at any time in the future he should find both market and storage overtaxed, he may turn to the accommodating FARMER, with the assurance that material aid will not be wanting. The editor has always loved honey most extravagantly, and now rejoices that the bee-keepers of Wisconsin have at last made the discovery.]

Give Us the Name.

MOUNT PLEASANT, AUG. 17, 1864.

MR. EDITOR:—You may stop our FARMER when our time expires. We are not farming now. Enclosed please find $1 00, for the present year.

How does this, "or any other man" expect to receive credit for money, when he neither gives his name or post-office? This is but a specimen of numerous letters of this description which we have received this year. Will men persist in being careless?

Dodge County Mutual Ins. Co.

Onward! and still onward! seems to be the motto of this sound and excellent company. The capital is now $114,675 50, and the business is rapidly increasing. Quiet and modest in its deportment, the Dodge County Mutual is really one of the safest and best companies doing business in this State.

Tappahannock White Wheat.

FREEDOM, OUTAGAMIE CO., WIS., Aug. 15, 1864.

MR. EDITOR:—In the August number of the FARMER you requested reports of the Tappahannock White Wheat. Accordingly, I send you mine.

On the 29th of September, 1862, I sowed a small bag of said wheat, received from the Patent Office, said to be from Maryland, and harvested it on the 11th of July, 1863, which, I think is several days' less time from sowing to harvest than that of the correspondents of the *Rural New Yorker*. Mine grew in a small plat, by itself, and on rather poor land, and, consequently, there was not a great yield; but it looks fine. I will send you a few grains in this letter.

GEORGE KNOWLES.

Beautiful wheat.—EDITOR.

Beautiful Portraits.

We are indebted to Henry M. Sherwood, Esq., Publisher, No. 112 Dearborn street, Chicago, for copies of the finest steel engraving portraits of President Lincoln, and Generals Grant and Hancock, that we have ever seen. They are really works of art, in the best sense of that word, and richly deserve a place in the parlor of every friend of the originals.

Mr. Sherwood is also publisher of "The Pictorial Gallery of Animated Nature," said to be (we have not yet seen it,) the most magnificent work of the kind ever yet published in this country.

Have We any Apples Hardy Enough?

What of hardy kinds of apples now? Will any stand such winters as last?

THOMAS STODDARD.

[We are still firm in the faith, but will let some of the practical fruit-growers answer as to sorts.]

Messrs. Hawkins & Chapman,

Of Chicago, want the names and post-office address of all prominent hop-growers in the West.

Turpentine for Ticks?

MERTON, August, 1864.

I am told that turpentine, fed to sheep, will drive off or prevent ticks. Does the FARMER know anything about it? Mr. John Wilcox, of Hebron, Jefferson County, Wisconsin, is said to have used it successfully. Yours, truly, H. C. PHILLIPS.

ANSWER.—We know that turpentine is recommended as an application in such cases, by Youatt, but we have never tried it. Randall recommends dipping in a decoction of tobacco, or in a solution of arsenic, (3 lbs. dissolved in 6 gallons of boiling water, and 40 gallons of cold water added,) or the application of mercurial ointment. —EDITOR.

Clover Hullers—Who Keeps Them?

BARABOO, Aug. 1, 1864.

MR. EDITOR:—Wishing to be informed where good Clover Hullers can be obtained, in abundance, and having written to several firms, all of whom are ignorant of them, the idea struck me that you would be posted on that question. If you will please inform me, by letter, you will greatly oblige a friend to industry. Yours, &c.,

E. D. JACKSON.

[Don't know who keeps them. If anybody manufactures or keeps them for sale, why doesn't he advertise them in the FARMER?

State Fairs, &c.

Fairs will be held in the following states, during the months of September and October:

Ohio	Columbus	Sept. 13—16
Michigan	Kalamazoo	Sept. 20—23
Wisconsin	Janesville	Sept. 26—30
Iowa	Burlington	Sept. 27—30
Indiana	Indianapolis	Oct. 3— 8
Illinois	Decatur	Sept. 12—16
Pennsylvania	Easton	Sept. 27—30
New York	Rochester	Sept. 20—23
Canada West	Hamilton	Sept. 26—30
Kentucky	Louisville	Sept. 6—10
Amer. Pom. Soc.	Rochester, N. Y.	Sept. 13—
New England	Springfield, Mass	Sept. 6— 9

WISCONSIN COUNTY FAIRS.

Sheboygan	Sheboygan Falls	Sept. 15—16
Dodge	Juneau	Sept. 21—23
La Fayette	Darlington	Sept. 26—29
Walworth	Elkhorn	Oct. 5— 7
Kenosha	Kenosha	Oct. 21—22

Feeding Salt, Twice Plowing, &c.

DAKOTAH, July 8, 1864.

MR. EDITOR:—I have been interested in reading the articles on feeding salt to stock, in the June number, from W. P. Underwood, and the rejoinder, in the July number, from S. H. Carpenter.

I think Mr. Carpenter, to be consistent, would have to show a deficiency of salt, or its constituents, in the food and drink of the animal, to secure healthy development, or else advocate the direct feeding of lime, potash, phosphorus, sulpuric acic, &c.

Oscar Babcock, of this town, told me, within a few days, that he planted part of his potatoes on once plowing, and a part on twice. Those on the ground twice plowed are twice as large as the others, and it has cost less to tend them.

A READER OF THE FARMER.

PUBLISHERS' CORNER.

The "Farmer" and the High Prices.

The times compel a few plain words with our friends:

When the undersigned assumed control of the FARMER, as publishers, we could buy paper at eight cents a pound; now it is twenty-five cents a pound, and is steadily advancing. Labor has advanced, also, by at least 50 per cent. So that the cost of the FARMER is full twice what it was when we offered it at $1 00 a year, with premiums added at a cost to us of fifteen to thirty cents each.

The cost of living has advanced in proportion, and is now full 100 per cent. greater than at that time.

Notwithstanding a very large increase in our list of subscriptions, (so large that with a little effort we could carry it up to ten thousand within the year,) we are now, and shall be for the remainder of this year, publishing the FARMER at the expense of our own private resources. Every number you read costs us a good deal more than we get for it.

If every one of the nearly 2,000 subscribers who are in arrears would pay up at once, it would relieve us somewhat. But this they persistently neglect to do—some because they don't stop to think that it is the individual dollars upon which we rely; some because they are pinched, and hope next week to be a little easier; some because the strawberries we offered to give them have either failed to reach them, or have since died. No matter what excuse they trump up wherewith to satisfy their consciences, there stands the fact: they do *not* pay.

In view of all the foregoing facts, and of others which we do not stop to name, two alternatives stand before us: we must either raise the price of the FARMER, or diminish its volume. The first we cannot do with subscribers who have paid and in the middle of the year; and we have therefore determined on a reduction in the number of pages from 40 to 32. By taking extra pains in the preparation and selection of matter, the FARMER may be made quite as valuable as heretofore, and we do not believe that any reasonable subscriber will think of complaining; especially as nearly every paper and magazine in the country has long since adopted one or the other of the alternatives above named. But whether complaint is made or not, our purpose is fixed. "Self preservation is the first law of nature;" and after working seven years for the agricultural public just about gratuitously, (the Editor says this,) we don't propose to bankrupt ourselves in an attempt to meet the unnatural demands of a few non-appreciative readers. If our readers prefer it, at the beginning of the new year we may give them more matter at a higher price.

As to suspension, the thought has never entered our heads, although one or two of the best agricultural magazines have set us the example. The word *fail* is not in our vocabulary. The FARMER is now a State institution, and must go ahead. State pride, if not personal, would prompt to this decision. For a young and vigorous state, like Wisconsin, rich in its resources and in the energy and intelligence of its growing population, to fail in the generous support of a single home industrial organ, were a burning

shame. No, there's no use in talking; the FARMER must go on. Our own efforts shall not be wanting, and all we ask is, that they who should constitute our thirty thousand readers give us a reasonable and deserved support. HOYT & CAMPBELL.

The Farmer for September and October.

Owing to a dead failure on the part of the paper-makers to get the paper for the September number manufactured in time for regular issue, compelling us to go out of the State for stock, its publication has been somewhat delayed. And inasmuch as they declare their utter inability, on account of low water and lack of hands, to make paper for the October number under three or four weeks from this date, and as the approaching Fair will demand every moment of our time this month, at the suggestion of a few of our many magnanimous subscribers, we have issued the numbers for September and October in one. The November number, containing the Awards of Premiums at the Fair, will be issued about the 15th of next month, and after that the old order will be restored.

Could we get paper anywhere in the country of the size we use, we would rather pay four prices than to drop a stitch in this way. But circumstances in war times are occasionally stronger than the strongest human will. If, all things considered, any subscriber feels like complaining, let him say so, and we will cheerfully refund him his money. That's fair, surely.

Secret of Good Farming.

BEAVER DAM, Jan. 18, 1864.

MESSRS. PUBLISHERS:—I have taken your valuable paper for the last two years, and always expect to, if it continues to be as interesting as it has been. Perhaps it may be interesting to you to know how I come to subscribe for it at first. I will tell you.

I noticed that one of my neighbors was getting rich on forty acres of land, while the rest of us had eighty or more; so I called on him, and asked him the secret. He said he took the FARMER, and practised its teachings. He asked me if I took it. I said, "No." He said, "You can't afford to do without it." I gave him the money, and have taken it ever since; and I can truly say it has been the means of opening my eyes, and is worth ten times its cost. It is a great mystery to me how you can afford it at so low a price.

The children send their love to Mrs. Hoyt, and want her to write more pretty stories. Yours, &c., L. N. ROOT.

P. S.—I have read one number without paying for it. Somehow, I can't understand it as well as I do the other numbers. It seems as though it belonged to some one else. L. N. R.

A good hint.—PUBS.

Sound on the Farmer Question.

KENOSHA, WIS., February, 1864.

MESSRS. PUBLISHERS:—I have delayed thus long in sending our subscriptions, as I have been trying to add a few more names to our list. Too many take Eastern publications. Some of them are good journals, to be sure; but if we, of Wisconsin, cannot afford to take more than one agricultural paper, then that one should be our own State paper; not simply because it is published in our own State, but because it is *pre-eminently the Wisconsin farmer's paper;* being best adapted to his wishes, wants, interests, and information.

It is certainly well to be posted in regard to farming in other states, and much information may be gained by reading other agricultural journals; but certainly we cannot take New York farming as a rule for farming in the Badger State, but must look to our own soil, climate, seasons, markets, &c., to know what is best, both pecuniarily and otherwise, to produce in this State. And the best way to do it we shall find from time to time through the pages of our own WISCONSIN FARMER, if those who know more than their neighbors will communicate through the FARMER. For myself, I am a novice in farming, but am willing to learn

of those who know, and think I get my money's worth, many fold, by reading the teachings of the FARMER.

Yours, &c., JOHN OLIVER.

Sound on the "Farmer" Question.

OFFICE OF THE BEAVER DAM NURSERIES, August 10, 1864.

MR. EDITOR:—Enclosed please find two dollars, to be placed to my credit for the FARMER. I do not know how the account stands between us. I only know that I do not intend to be delinquent about keeping my subscription paid up in advance; for I very well know and understand the vital importance of sustaining the FARMER; and I would to God that every man who owns any soil in this State felt the importance of keeping up the FARMER as I do. I, for one, am too poor to get along without it, and I guess there are many such, if they knew the advantages of taking a home journal, devoted to the agricultural interests of our own State. Please send me a receipt, and oblige Yours, truly, J. GOULD.

Turning Over a New Leaf.

WAUKAU, Aug. 9, 1864.

MR. EDITOR:—I have been a Wisconsin farmer for eighteen years, and have "farmed it" as most of my class have done; but I have resolved to turn over a new leaf; and the first step towards doing things as they should be done will be to get possession of the FARMER. Enclosed is one dollar, for which please send the FARMER for one year. You will probably hear from me again next year at this time.

Yours, &c., A. F. FOOTE.

[Decidedly sensible. We welcome you into our great family circle. About thirty thousand more Wisconsin farmers need to turn over the same sort of a leaf.]

New Advertisements.

Spanish Bucks, by A. F. Knox and Horace Williams;

True Delaware Grape Vines, by George W. Campbell, the original producer:

McFarland's Bog Cutter, by John Webster;

Rock Terrace Nursery, by L. P. Chandler;

Hardy Flowering Bulbs, by James Vick, Rochester;

South Down Sheep and superior Nursery Stock, by A. G. Hanford & Bro.

Literary Notices.

MINERAL RESOURCES OF THE CORDILLERAS OF NORTH AMERICA, particularly as to Precious Metals. With a Map. By Col. Charles Whittlesey, of the late Geological Surveys in Ohio, Wisconsin, and the Northwestern States. Published by J. B. Lippincott & Co., Philadelphia. Price, 25 cents.

A neat pamphlet of 64 pages, beautifully printed, and full of interest to the miner, the geologist, and the political economist. See notice, with extracts, in Mining Department of this number.

INDUSTRIAL UNIVERSITY EDUCATION, by Prof. J. B. Turner. Emery & Co., Chicago.

The central idea of this paper on education is sound, though its influence for good is somewhat impaired by a too free indulgence in that inelegant, *slam-bang* style characteristic of the author. The Professor's discussion of the causes of failure in the case of so many of the industrial schools hitherto attempted will be noticed in the Educational Department of the FARMER.

ANNUAL REPORT OF THE ADJUTANT GENERAL OF THE STATE OF WISCONSIN, for the year ending September 30th, 1863.

We are indebted to William J. Park, State Printer, for a copy of this Report, neatly bound in muslin. It contains brief historic accounts of the several Regiments in the service, the Roster of the State Militia, Regimental Roster of Wisconsin Volunteers, Draft Statistics, &c., &c. In the future these records will be of great service. Gen. Gaylord is making a good officer, and is entitled to much credit for the efficient and faithful manner in which he attends to his arduous duties.

THE AMERICAN CONFLICT: A History of the Great Rebellion in the United States of America, 1860—'64; its Causes, Incidents, and Results; intended to exhibit especially its Moral and Political Phases, with the Drift and Progress of American Opinion respecting Human Slavery from 1776 to 1864. By Horace Greeley. Illustrated by portraits on steel of Generals, Statesmen, and other eminent men; views of important places, battle scenes and diagrams from official sources. Published by O. D. Case & Co., Hartford, and by George & C. W. Sherwood, Chicago.

We have had the opportunity to hastily examine the first volume of this great work of one of America's ablest and most faithful writers, and it is our opinion that no man in the world could have done the work better than it has been done, thus far, by Mr. Greeley. We say this in simple justice, and without partiality for a statesman of whose course we have not unfrequently had occasion very cordially to disapprove. We take it that no man can be to-day fully competent to write a History of the Rebellion; but it is certainly important that the materials should be put in the best possible form for preservation, and that they may even be so presented as to contribute somewhat to a juster appreciation of the true position of our Government, and so help in the grand work of restoring peace, and re-establishing the Union of the States upon a firm and enduring basis.

ADDRESS OF HENRY S. RANDALL, LL. D., before the Convention of Wool Growers, held at Columbus, Ohio, January 5th and 6th, 1864; also, embracing

the Transactions of the Wool Growers' Association.

A very valuable pamphlet, replete with important statistics and other information. Published by S. D. Harris, Cleveland, Ohio. Single copies sent, postpaid, for 25 cents. Five copies for $1 00.

PRIZE LIST OF THE PROVINCIAL AGRICULTURAL ASSOCIATION, for the 19th Annual Exhibition, to be held in the city of Hamilton, during the last week of September, 1864.

A well classified and exceedingly liberal List of Prizes. Upper Canada appears to be fully awake to the importance of fostering her agricultural interests. Did the Fair not come at the time appointed for ours, we would endeavor to be there.

LIST OF PREMIUMS AND REGULATIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY, for the 24th Annual Fair, to be held at Rochester, September 20th to 23d, inclusive.

The New York farmers, under the able lead of their veteran Secretary, Col. B. P. Johnson, are always doing, and doing well.

[Notices of several other new publications, which other articles have crowded out, will be given in our next number.]

[Advertisement.]

McFarland's Bog Cutter.

NORTH PRAIRIE, WASHINGTON Co., WIS., August 26, 1864.

To the Editor of the Wisconsin Farmer:

DEAR SIR:—I beg leave to call the attention of the farming community to a new and valuable labor-saving machine, patented in 1842, by Alexander McFarland, and now for the first time introduced into the central and western part of the State, and and designed to make a reformation in the mode of culture of low and marshy land. The machine is known as "McFarland's Bog Cutter." It is simply constructed, and when worked by a single team, is capable of evening down three or four acres of bog marsh a day, cutting the small hillocks into fine soil, and filling up openings in the ground, leaving a smooth, even surface. The machine leaves the ground in perfect condition for the reception of grass seed, and when the seed is sown just before a smart shower, will hardly require dragging. Where cattle are kept off of low, marshy land, so reclaimed, for two or three seasons, the soil is firmly fixed, and afterwards can be depastured, or cut with the scythe or reaper, the small hillocks never appearing again.

The machine can be furnished at $25 00, at the place of manufacture, at North Prairie, in Waukesha County, in this State. The undersigned, who has the right of manufacture for the State, will have one of these machines on exhibition at the coming State Fair, at Janesville, and farmers are especially desired to examine it, and to test its adaptation to the purpose stated above. JOHN WEBSTER, Manufacturer.

HARDY FLOWERING BULBS,

FOR FALL OF 1864.

MY Illustrated Annual Catalogue of Hardy Dutch and other Flowering Bulbs, and

GUIDE TO THE FLOWER GARDEN,

Is now ready to send out. It consists of full and plain descriptions of the best

Hyacinths, Tulips, Crocuses, Snow Drops, Crown Imperials, Anemones, Lilies, &c.,

With ample directions for planting and culture. My Catalogue, this season, is beautifully illustrated, containing, among other illustrations, two full page engravings, and one beautiful colored plate of the

JAPAN LILY.

It is sent, free of postage, to all who apply, inclosing ten cents. Catalogues are always sent to my customers of the previous year, free, as soon as issued, without being ordered.

My importations from Holland, the present year, have never been equalled for extent, variety, and excellence. Address JAMES VICK, Rochester, N. Y.
sep-1m

ROCK TERRACE NURSERY,

NEAR MADISON, WIS.

THE undersigned would call the attention of those wishing to purchase Fruit, Ornamental Trees, Evergreens, Herbaceous Plants, Shrubs, Japan Lilies, Small Fruits of any description, Vines, &c., &c., to his large stock, of Wisconsin growth, of superior quality. I intend to clear a large portion of my Nursery ground, this fall and the coming spring, and those wishing to purchase largely can get great bargains at the Nursery. Any one wishing to purchase my entire stock can do so at a very great bargain, and have plenty of time to remove the stock. The stock, for health and vigor, cannot be surpassed in the State. *The trees are all free from insects.* I will sell extra sized Evergreens at less than half the usual prices. Information can be obtained at the Nursery, or by letter. Post-office address,

L. P. CHANDLER,
Rock Terrace Nursery,
Madison, Wis.
[Formerly Robbins & Chandler.] sep-7m

TRUE DELAWARE GRAPE VINES,

FROM THE ORIGINAL VINE!

BEST QUALITY OF PLANTS

AT LOW PRICES!

ALSO, choice vines of Allen's White Hybrid, Adirondac, Anna, Black King, Crevelling, Concord, Clinton, Cuyahoga, Clara, Cassady, Diana, Elsinburgh, Golden Clinton, Garigues, Hartford Prolific, Herbemont, Iona, Israella, Lydia, Louisa, Lincoln, Lenoir, Logan, Maxatawney, Mottled, Manhattan, Norton's Virginia, Oporto, Ontario, Rebecca, Raabe, Rogers' new Hybrids, Taylor's Bullitt, To-Kalon, Union Village, Underhill's Seedling, &c. Also, Downing's ever-bearing Mulberry, Currants, Raspberries, Strawberries, &c.

Send stamp for descriptive price list, to
GEORGE W CAMPBELL,
sep-3m Belaware, Ohio.

MILWAUKEE AND CHICAGO

RAILROAD LINE.

TWO through trains daily between Milwaukee and Chicago. Close and reliable connections in Chicago with all the Eastern, Southern, and Southwestern lines. Also, connects with the Racine and Mississippi Railroad, at Racine, and with the Kenosha, Rockford and Rock Island Railroad, at Kenosha.

Time as Quick, and Fare as Low,

As by any other route. JNO. T. MOODY, Mas. Trans., Milwaukee.

THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, OCTOBER 29, 1864. No. 11.

The State Fair of 1864.

The State Fair is at length among the things that were. It was gotten up with great effort on the part of the officers of the Society, and in spite of difficulties, which, in the estimation of very many of its friends, promised nothing but defeat and ruin. The sequel has shown that the Committee were right in going ahead; for, although the results were not equal to those of other and more favorable years, they were more satisfactory than anybody had dared to hope; the more interesting, and, just now, important departments, to wit: the fruit, the sheep, and the machinery and implement departments, being very handsomely represented, and the receipts being sufficient to pay all the expenses and all premiums, with a surplus of nearly a thousand dollars.

Had the weather been favorable, the receipts would have been full seven thousand dollars—larger by one thousand dollars than ever before. Next year, we hope the skies will be more propitious.

The following condensed account of the Exhitition is given for the benefit of those who were unable to attend, and as a brief record of an important event in the industrial history of Wisconsin.

The entries having been made on Monday and Tuesday, at 10 o'clock on Wednesday morning the Exhibition was formally opened by the following address, delivered by Col. B. R. Hinkley, President of the Society:

OPENING ADDRESS.

Gentlemen of the State Agricultural Society and Fellow Citizens:

It is the prerogative of the Society I this day have the honor to represent, to impose such duties upon its officers as may be necessary to the entire accomplishment of the important objects for the promotion of which it was originally established. And inasmuch as I hold it to be the duty of every member thereof to yield the most implicit obedience to all its requirements, there seems to be no honorable alternative for me but to formally open this State Exhibition with an address. I shall endeavor to comply with this demand upon my efforts so far as to make a few remarks appropriate to the occasion, and not being prepared to make a formal address in the popular sense, will content myself with a brief review of the circumstances and motives which have hitherto determined the policy of the present board of officers.

It is now three years since we were gathered together for the purpose of making an exhibition of the products of our industry, as a state, and of interchanging views as to the best means of advancing the material and social interests of the commonwealth. The last exhibition was the most complete and successful of any that had ever been held in Wisconsin, and the Society, stimulated by the results of that and previous efforts, was largely encouraged, so that it planned an exhibition for 1861 on a still more liberal and magnificent scale. But great political events, such as few if any

anticipated, soon transpired. The whole nation was plunged into a fearful civil war; the grounds and improvements we had intended for the exhibition of 1861 were turned over to the Government for a military encampment; the Legislature, in its very questionable wisdom, repealed the law by virtue of which the Society had received from year to year an appropriation of $3,000, from the moneys of the State; the means of the Society, to the amount of some $5,000, remained unavailable in a recognized but unaudited account against the United States; the public mind was distracted and absorbed by the deplorable condition of the country, and postponement after postponement of our annual fairs followed as a natural, if not a necessary, consequence.

But we have not forgotten that industry is the only basis of the material prosperity of State and Nation, nor that the final triumphant issue of the Government of our choice from the deep troubles by which it has been well nigh overwhelmed, is to be secured scarcely less through the heroic efforts of persistent labor, than through victories won by our arms; and, accordingly, trusting in industrial exhibitions as an important means of stimulation and information, in February last the resolution was formed, by the officers of the State Agricultural Society, to again attempt a State Fair. The Premium List was issued in May, and measures were immediately taken to insure a success. Since then, however, new difficulties have arisen. A drouth of great severity and long protraction, together with unheard-of ravages of insect foes, have reduced our crops to less than a third of what the average crops should have been, and, finally, a new draft for half a million more men for the army has again filled the public mind with thoughts of war, to the exclusion of almost everything else.

Under all these circumstances, the Executive Committee have not felt warranted in making preparations such as were made in 1860, and such as would have been grateful to their pride. The fruit of their zealous, if not entirely successful efforts is before you.

Upon the Judges, whom we have selected with great care, and upon the superintendents of the various departments, very much yet depends. We trust they will use their best endeavors to meet the demands of the occasion, and that complete success will be the result of our united labors.

It now only remains to me to declare the Exhibition open, to urge upon all the best use of the opportunity it affords, and to express the hope that, when, in 1865, we again unite in an annual festival, the victorious armies of the Republic will have so thoroughly done their work that henceforth, for many generations—yea, *for all time to come*—the arts of Peace may have uninterrupted progress.

JUDGES DIDN'T "COME TO TIME."

On calling the roll of Judges it was found that only about 30 of the more than 200 appointed were present. The failure of committeemen to attend has always been a source of great embarrassment to the Society, but never was the delinquency so provoking as on this occasion. It is impossible that men picked up on the spur of the moment, without time to acquaint themselves with even the rules and regulations by which they are to be governed in their inspection, should be able to discharge their duties in a manner entirely satisfactory either to themselves or to those for whom they act. It is true that the Society is unable to offer pecuniary inducements to insure the attendance of judges. Its funds will not allow so large an expenditure for that purpose. But then it might reasonably be expected that interest in a public enterprise of so much importance would constitute a sufficient incentive with a large proportion of the appointees, and that those who, for good reasons, find themselves unable to attend, would have the politeness to notify the Secretary of their inability, so that their places might be supplied. And yet it is a fact that of the whole number who were pointedly notified by the transmission of copies of the Premium List, with their names marked therein, only *five*

of the 170 who failed to appear at the Fair deigned a reply!

It is believed that the persons who kindly consented to serve the Society as substitutes, with rare, if any, exceptions, were competent and faithful judges, and that the results of their labors have been, in the main, satisfactory.

BIRD'S EYE VIEW OF THE DEPARTMENTS.

At the right of the gate of entrance, and extending along the enclosure for some distance, were

The Sheep Pens, filled with as fine specimens of the ovine race as ever graced even an international exhibition. The Spanish Merinoes were in greatest force; the long wool and middle wool sheep next. This is all right. Just now there is but little difference made by purchasers in favor of fine wool; but when the war ends, the owners of fine wool sheep will again be "in luck." Wool-growing is, at present, and will be, for some time to come, the most profitable branch of husbandry in Wisconsin, and we are glad to see the evidences that this is becoming the conviction of our farmers. The List of Premiums awarded will show who are foremost in this business.

Next, in order of place, came

The Swine, occupying several pens. Mr. Ruble was king in this department, showing one Yorkshire boar for which he had been offered $800 00; weight, 1,200 pounds!

The Poultry Pens were likewise pretty much monopolized by Mr. Ruble. This branch of husbandry does not receive the attention it deserves, and we were glad of the interest awakened by Mr. R.'s fine display.

The Horse Department was worthily represented as to quality, though the number of animals on exhibition was not large. The Thoroughbreds, the Roadsters and the Trotters especially attracted the attention of visitors, and by their fine displays of blood and speed added much to the interest of the Exhibition. The thoroughbreds shown by Mr. Simon Ruble alone were valued at scarcely less than ten or twelve thousand dollars.

The Cattle Department was meagrely represented. But for Richard Richards, of Racine, Clinton Babbitt, of Beloit, and A. G. Darwin, of Madison, the Short Horns would have been nowhere; and the same may be said for I. S. Newton, of Middleton, and George Baker, of Hustisford, with reference to the Devons. Cattle-breeding is not, at present, so profitable a business in this State as the raising of sheep and horses, and it would hardly have been reasonable to have expected a very large show in this department. The time is coming, however, when the cattle-breeders will have compensation for their enterprise. Wheat-growing will not always be insanely followed.

Machinery and Implements were there in large number and variety. Reapers and mowers, seed drills and cultivators, plows, harrows, rollers and bog-cutters, patent gates, hay gatherers, hay pitchers, washing machines, clothes wringers, and a multitude of other machinery, too numerous to mention, were strewn about the Operative Machinery Hall, to the great comfort of those who were anxious that this most fascinating department should rank No. 1.

E. W. Skinner & Co., leaders in the sorghum machinery business, were there, with their mills and apparatus in complete and successful operation, crushing the cane, evaporating the juice, and putting on all the appearance of a regular sugar establishment of Louisiana. They have taken first prizes at all the North-Western State Fairs, and are doing a magnificent business.

Manufacturers' Hall was respectably filled, though not so well as formerly. The chief attraction was a highly interesting trial of cooking stoves (Stewart's), entered by Mr. E. S. Barrows, of Janesville. They did their work splendidly, and liberally dealt out roast beef and beautiful bread to the ad-

miring multitude. Fairbanks' scales were there, as usual, unparalleled and unchallenged. We do not believe they have their equal in the world, and although there is but little probability of their finding competitors at our fairs, we are none the less glad to see them always on hand.

Fruits, Grains and Vegetables were crowded into one large tent; the Fruit and Flower Department occupying one-half. The fruit crop has been two-thirds a failure this year, and on this account we did not expect much of a show. We were agreeably disappointed. The show was fine as to variety and quality, and respectable as to quantity. We have not space to even name the exhibitors, but cannot forbear, even at the risk of being thought invidious, to make mention of the handsome displays made by George P. Peffer, of Pewaukee, P. B. Spaulding, of Beloit, Messrs. Tuttle, Clark & Son, of Baraboo, and, best of all, the beautiful show of different varieties of fruits, green-house plants and flowers, by F. W. Loudon, of Janesville. As an officer of the Society, largely responsible for the attempt to hold a Fair, we felt especially grateful to Mr. L. for the enterprise and fine taste manifested by him on this particular occasion. As Editor, we are also grateful for his liberal remembrance of our partiality for superior grapes, apples and pears.

Fine Arts Hall, (thanks to the courtesy of the citizens of Janesville, and the excellent taste of Rev. Mr. Goodspeed, and of Mr. Rafter, of Nesbota Seminary, the efficient Superintendents of that Department,) was handsomely decorated with paintings, photographs, embroideries, and other works of art. The musical instruments were also there, Messrs. Darling, Wilson & Eldridge, all of Janesville, being liberal contributors.

Between the Hall of Arts and Fruit Hall stood a beautiful pagoda, erected by order of Mrs. S. M. Coe, of Janesville, Agent for Wheeler & Wilson's Sewing Machines. The pagoda, with its floating stars and stripes, was an ornament to the grounds, and the ceaseless hum and click of the several beautiful machines attracted great crowds of admiring spectators. We have no criticisms for the Committee which awarded the medal to Grover & Baker's machine. They doubtless discharged their duties conscientiously. But we are nevertheless unshaken in our own humble judgment, that the Wheeler & Wilson machine, for general family use, has no superior in the world.

The following are the awards of prizes in all the departments of the Exhibition:

AWARD OF PREMIUMS.

DIVISION A.—DOMESTIC ANIMALS.

Department of Horses, Jacks, and Mules.

CLASS 1.—THOROUGH BRED HORSES.

John Batie, Tafton, stallion, "Princeton," 4 yrs, 1st premium $30 00
Simon Ruble, Beloit, stallion, "Buckshot," 4 yrs, 2d prem 20 00
C. Loftus Martin, Janesville, stallion, "Young Princeton, under 3 yrs, 1st prem 8 00
Simon Ruble, Beloit, stallion colt, "Young Medoc," sucking colt, 1st prem 3 00
E. Millen, Janesville, sucking colt, "Young Princeton," 2d prem 2 00
M. W. Elkins, Beloit, sucking mare colt, 1st prem 3 00
M. W. Elkins, Beloit, brood mare, "Puss Ferris," 4 yrs, 1st prem 20 00
S. Ruble, Beloit, brood mare, "Maria Hamilton," 4 yrs, 2d prem 12 00

JUDGES.—Andrew Proudfit, Madison; O. P Robinson, Janesville; Jno. Forbes, Fort Atkinson.

CLASS 2.—ROADSTERS.

Geo. W. Blanchard, Lake Mills, stallion, "Hambletonian," 4 yrs and over, 1st prem 25 00
A. McConnel, Oconomowoc, stallion, "Abe Lincoln," 4 yrs and over, 2d prem 15 00
Emery Colby, Freeport, Ills., stallion, 3 yrs and over, 1st prem 10 00
A. J. Warner, Shopiere, stallion, 3 yrs and over, 2d prem 7 00
G. W. Thustan, Waukesha, brood mare, 4 yrs and over, 1st prem 15 00

JUDGES.—Andrew Proudfit, Madison; Dr. Robinson Janesville; J. P. Rix, Cedar Creek.

CLASS 3.—HORSES FOR GENERAL PURPOSES.

D. Merrill, Beloit, stallion, 4 yrs and over, 1st prem 20 00
N. Potter, Eau Claire, stallion, 4 yrs and over, 2d prem 15 00
H. Smith, Shopiere, stallion, 3 yrs, 1st prem 10 00
H. P. Fales, Janesville, stallion, "Young Rattler," 2d prem 7 00
J. H. Young, Elkhorn, stallion, 2 yrs, 1st prem. 6 00
M. K. Farnsworth, Whitewater, stallion, "Duroc," 2 yrs, 2d prem 4 00
A. T. Watson, Footville, stallion colt, (yearling,) 1st prem 5 00
P. Schmitz, Harmony, stallion colt, (yearling,) 2d prem 3 00
J. R. Dickson, Janesville, brood mare, 4 yrs and over, 1st prem 12 00
L. H. Bond, Lima Centre, Black Hawk brood mare, "Belle of Wisconsin," 4 yrs, 2d prem 8 00
J. R. Dickson, Janesville, brood mare, 3 yrs, 1st prem 7 00

Thos. Barlass, Emerald Grove, brood mare, 2d prem. 5 00
J. G. Potter, Beloit, mare, 2 yrs, 1st prem..... 5 00
J. O. Van Gelder, Janesville, filly, 1st prem.... 5 00
P. R. Tierney, Westport, filly, 2d prem 3 00
Chas. Hanford, Emerald Grove, sucking mare colt, 1st prem..... 3 00

JUDGES.—J. H. Warren, Albany; Wm. Burroughs; W. A. Johnson.

CLASS 4.—DRAFT HORSES.

Morgan Wescott, Barton, stallion, "Young Gifford Morgan," 1st prem..... 7 00
John Liscumb, Janesville, sucking stallion colt, 1st prem..... 3 00
Jas. Bullard, Evansville, sucking stallion colt, 2d prem..... 2 00

JUDGES.—Same as for Class 3.

CLASS 5.—JACKS AND MULES.

J. S. Owens, Evansville, jack, imported, 1st prem..... 25 00
M. C. Cook, Milwaukee, jack, 2d prem..... 10 00
Simon Ruble, Beloit, pair work mules, 1st prem 10 00
J. W. Smith, Whitewater, single mule, 1st prem..... 5 00

JUDGES.—Same as for Class 3.

CLASS 6.—MATCHED HORSES AND MARES.

R. T. Pember, Janesville, pair matched geldings, 4 yrs old and over, 1st prem 20 00
E. N. Sheldon, Monroe, pair matched draft horses, 4 yrs old and over, 1st. prem..... 20 00
Gilbert Adams, Racine, pair roadsters, 5 and 6 yrs old, 1st prem..... 20 00

JUDGES.—Emery Thayer, East Troy; Wm. Hollinshead, Elkhorn; P. E. Dickey.

CLASS 7.—GELDINGS OR MARES FOR SINGLE HARNESS, SADDLE, &c.

A. G. Darwin, Madison, single horse, brown, 4 yrs old and over, 1st prem 10 00
J. H. Waterman, Milton, single horse, dapple grey, gelding, 4 yrs old and over, 2d prem.. 5 00
B. F. Pendleton, Janesville, saddle horse, brown gelding, 1st prem..... 10 00
L. Moses, Janesville, saddle horse, bay gelding, 2d prem..... 5 00

JUDGES.—Same as for Class 6.

CLASS 8.—TROTTERS.

B. F. Annis, Lake Mills, trotting stallion, time, 2.53, 1st prem..... 30 00
S. T. Turner, Grand Rapids, Mich., trotting stallion, time, 2.54, 2d prem..... 20 00
J. Bullene, Jr., Beloit, trotting stallion, time, 3.00, 3d prem 15 00
S. Hutson, Janesville, trotting mare, time, 2.45, 1st prem..... 30 00
Nelson Gatliff, Racine, trotting mare, time, 2.55, 2d prem..... 20 00
Jerome Gates, Delavan, trotting gelding, time, 2.42¾, 1st prem 25 00
Gilbert Adams, Racine, trotting gelding, time, 2.43¾, 2d prem..... 15 00
A. E. Ingalls, Racine, trotting matched geldings, time, 3.55, 1st prem..... 25 00

JUDGES.—N. M. Harrington, Delavan; N. Potter, Eau Claire; E. Thayer, East Troy; Simon Ruble, Beloit.

CLASS 9.—WALKERS.

Dr. Wm. Horne, Janesville, walking gelding, 1st prem..... 10 00

JUDGES.—Same as for Class 8.

Cattle Department.

CLASS 10.—SHORT HORNS.

Richard Richards, Racine, bull, "Napoleon," 3 yrs and over, 1st prem..... 25 00
Jas. Haddin, Johnstown, Durham bull, 5 yrs old, 2d prem..... 15 00
Clinton Babbett, Beloit, red Durham cow, 1st prem..... 20 00
Clinton Babbett, Beloit, roan Durham cow, 2d prem..... 15 00
Richard Richards, Racine, heifer calf, "Arabella," 1st prem..... 7 00
A. G. Darwin, Madison, red heifer, "Wingra Belle," 2 yrs, 1st prem..... 15 00

JUDGES.—E. M. Danforth, Summit; Chas. H. Williams, Baraboo; Samuel Pratt, Waukesha; John Munson.

CLASS 11.—DEVONS.

Geo. Baker, Hustisford, Devon bull, 2 yrs, 2d prem..... 10 00
J. K. Kimball, Kenosha, Devon cow, 6 yrs, 1st prem..... 20 00
I. S. Newton, Middleton, Devon cow, 6 yrs, 2d prem..... 15 00
Geo. Baker, Hustisford, heifer, 2 yrs, 1st prem. 15 00
I. S. Newton, Middleton, Devon heifer 1 yr, 1st prem..... 7 00
Geo. Baker, Hustisford, Devon calf, 6 mos, 1st prem..... 7 00
I. S. Newton, Middleton, Devon calf, 6 mos, 2d prem..... 5 00

JUDGES.—Same as for Class 10.

CLASS 12.—ALDERNEYS.

Ben Reed, Madison, Alderney bull, 3 yrs, 1st prem..... 25 00

JUDGES.—Same as for Class 10.

CLASS 15.—GRADE CATTLE AND WORKING OXEN.

Richard Richards, Racine, grade cow, "Maria," 3 yrs and over, 1st prem..... 10 00
C. Loftus Martin, Janesville, grade cow, 3 yrs and over, 2d prem..... 7 00
I. S. Newton, Middleton, 1 pair 3 yr old steers, 1st prem..... 7 00

JUDGES.—Pliny M. Perkins, Burlington; H. H. Sterling.

Sheep Department.

CLASS 18.—SPANISH MERINOES.

C. M. & H. B. Clark, Whitewater, Spanish buck, 2 yrs, 1st prem..... 10 00
Horace Williams, Whitewater, Spanish bdck, 2 yrs, 2d prem..... 7 00
C. M. & H. B. Clark, Whitewater, Spanish buck, 1 yr, 1st prem..... 7 00
Richard Richards, Racine, Spanish buck, 1 yr, 2d prem..... 5 00
C. M. & H. B. Clark, Whitewater, pen of Spanish buck lambs, 1st prem..... 5 00
R. Richards, Racine, pen of 3 buck lambs, 2d prem..... 3 00
R. Richards, Racine, pen of 3 ewes, 2 yrs, 1st prem..... 10 00
C. M. & H. B. Clark, Whitewater, pen of 3 ewes, 2 yrs, 2d prem..... 7 00
C. M. & H. B. Clark, Whitewater, pen of 3 ewes, 1 yr, 1st prem..... 7 00
Richard Richards, Racine, pen of 3 ewes, 1 yr, 2d prem..... 5 00
C. M. & H. B. Clark, Whitewater, pen of 3 ewe lambs, 1st prem..... 5 00
R. Richards, Racine, pen of 3 ewe lambs, 2d prem..... 3 00

JUDGES.—S. L. Sheldon, Madison; David Smith, Harmony; Isaac Clark, Galesville.

CLASS 19.—FRENCH MERINOES.

Wm. L. D. Crandall, Milton, 1 French buck, 2 yrs, 1st prem engraving or..... 10 00

JUDGES.—Same as for Class 18.

CLASS 22.—LONG WOOL, MIDDLE WOOL, LEICESTER.

John Batie, Tafton, South Down buck, 6 yrs, 1st prem, engraving, or..... 10 00
M. Towers, Omro, South Down buck, 2 yrs, 2d prem..... 7 00
Simon Ruble, Beloit, South Down buck, 1 yr, 1st prem..... 7 00
M. Towers, Omro, South Down buck, 1 yr, 2d prem..... 5 00
Simon Ruble, Beloit, pen of 3 South Down buck lambs, 1st prem..... 5 00

M. Towers, Omro, pen of 3 South Down buck lambs, 2d prem 3 00
S. D. Butts, West Milton, pen of 3 Leicester lambs, (no competition,) 1st prem 5 00
Simon Ruble, Beloit, 3 South Down ewes, 2 yrs and over, 1st prem 10 00
Matthew Towers, Omro, 3 South Down ewes, 2 yrs and over, 2d prem 7 00
Matthew Towers, Omro, 3 South Down ewes, 1 yr and under 2 yrs, 1st prem 7 00
Simon Ruble, Beloit, 3 South Down ewes, 1 yr and under 2 yrs, 2d prem. 5 00
Matthew Towers, Omro, 3 South Down ewe lambs, 1st prem 5 00

JUDGES.—Same as for Class 18.

Swine and Poultry Department.

CLASS 24.—SWINE.

Simon Ruble, Beloit, Yorkshire boar, "Don Pedro," 2 yrs and over, 1st p 10 00
Simon Ruble, Suffolk boar, 2 yrs and over, 1st prem 10 00
H. P. Fales, Janesville, boar, "Chester White," 13 mos, 1st p 7 00
Simon Ruble, Beloit, Suffolk sow, 2 yrs and over, 1st p 10 00
Simon Ruble, Beloit, Yorkshire sow, 6 mos old, 1st p 5 00
Simon Ruble, Beloit, Yorkshire boar, under 1 yr old, 1st p 5 00

JUDGES.—D. W. Maxon, Maxonville; I. L. Rix, Cedar Creek; Jas. Catton.

CLASS 25.—POULTRY.

Simon Ruble, Beloit, best and greatest variety of poultry, 1st p 5 00
H. P. Fales, Janesville, white China fowls, 1st prem 2 00
Simon Rublee, Beloit, 1 cock and 2 hens, Bantums, very fine, no competition 2 00
Simon Ruble, Beloit, 1 pair pea fowls, good, no competition 2 00
Simon Ruble, Beloit, 1 pair African geese, very fine, no competition 2 00
Simon Ruble, Beloit, 1 pair Muscovy ducks, very fine, no competition 2 00
Simon Ruble, Beloit, 1 cock and 2 hens, black Java 2 00

JUDGES.—W. S. Chase, Janesville; A. W. Case, Racine; Wm. W. Lester, Janesville.

DIVISION B.—PRODUCTS OF THE SOIL, DAIRY AND HOUSEHOLD.

Agricultural Department.

CLASS 26.—FIELD PRODUCTS.

M. L. Ladd, Millard, 1 bushel pearl wheat, spring, 1st premium 3 00
A. A. Boyce, Lodi, 1 bushel Rio Grande, spring, 2d p 2 00
M. L. Ladd, Millard, 1 bushel Poland oats, 1st prem 2 00
A. A. Boyce, Lodi, 1 bushel Poland oats, 2d p . Trans
A. A. Boyce, Lodi, 1 bushel Barley, no competition 2 00
N. Macomber, Emerald Grove, 1 bushel flax seed, no competition 3 00
Wm. Spaulding, Janesville, 1 bushel Timothy seed, no competition 3 00
Wm. Hollinshead, Elkhorn, sample of clover seed, no competition 3 00
M. L. Ladd, Millard, 1 bushel navy beans, 1st prem 2 00
Wm. Spaulding, Janesville, 1 bushel beans, 2d prem ..... Trans.
A. A. Boyce, Lodi, 1 bushel seed corn, 1st p ... 3 00
M. L. Ladd, Millard, 1 bushel Dent corn, 2d p. Trans.
A. A. Boyce, Lodi, sample peach blow potatoes, 1st p 2 00
Wm Hollinshead, Elkhorn, sample peach blow potatoes, 2d p. ..... Trans.
Wm. Spaulding, Janesville, sample pink-eye potatoes, 1st p 2 00
Wm. Hollinshead, Elkhorn, sample pink-eye potatoes, 2d p ..... Trans.
Geo. J. Kellogg, Janesville, variety of early potatoes 2 00
Wm. Spaulding, Janesville, 13 varieties potatoes, 1st p 5 00
Wm. Hollinshead, Elkhorn, show of excellent pototoes, 2d p 3 00
N. Macomber, Emerald Grove, sample of carrots, 1st p 2 00
M. L. Ladd, Millard, sample of carrots, 2d p ... Trans.

JUDGES.—Z. P. Burdick, Janesville; Albert Bemis; C. C. Fisher.

CLASS 27.—GARDEN VEGETABLES.

C. G. Griffith, Janesville, twelve beets, 1st premium ..... Last vol. Transactions.
N. Macomber, Emerald Grove, 12 best carrots, 1st p 2 00
Simon Ruble, Beloit, sample of onions, 1st p.. 2 00
N. Macomber, Emerald Grove, sample of onions, 2d p ..... Trans.
N. Macomber Emerald Grove, half peck of Lima beans, 1st p ..... Trans.
Wm. Hollinshead, Elkhorn, sample of sweet potatoes, 2d p ..... Trans.

JUDGES.—Geo P. Peffer, Pewaukee; Geo. Lawrence, Waukesha; James R. Gunn, Hudson.

CLASS 28.—PRODUCTS OF THE DAIRY AND HOUSEHOLD.

C. C. Fisher, Centre, 1 jar of butter, 25 pounds, 1st p 7 00
A. A. Keith, Johnstown, 1 jar of butter, 2d p.. 5 00
N. Macomber, Emerald Grove, 1 jar of butter, 3d p 3 00
M. S. Twining, Broadhead, 3 cheeses, 1st p 7 00
F. H. Coburn, Whitewater, 3 cheeses, 2d p 5 00
G. W. Coburn, Whitewater, 3 cheeses, 3d p ... 3 00
G. W. Coburn, Whitewater, single cheese, 1st p. 2 00
F. H. Coburn, Whitewater, single cheese, 2d p. Trans.
J. J. Clark, Janesville, 1 barrel of winter wheat flour, 1st p 5 00
Allen & Jackman, Janesville, spring wheat flour, 1st p 5 00
B. S. Hoxie, Cooksville, best honey, 1st p 5 00
Geo. J. Kellogg, Janesville, 10 pounds of honey, 2d p 3 00
Geo. J. Kellogg, Janesville, 5 pounds of honey, fine sample ..... No premium offered. Trans.

JUDGES.—Eli Stitson, Oshkosh; G. G. Gillett, Janesville; Z. Spaulding, Harmony.

Fruit and Flower Department.

CLASS 29.—FRUITS GROWN BY NON-PROFESSIONAL CULTIVATORS.

Geo. P. Peffer, Pewaukee, best and greatest variety of apples, diploma and 7 00
B. B. Olds, Clinton, variety of apples, 2d p 5 00
C. F. Richards, Hustisford, variety of apples, 3d prem 3 00
John Westley, Clinton, 10 varieties of apples, 1st p 3 00
B. B. Olds, Clinton, 10 varieties of apples, 2d p. 2 00
Frances Westly, Clinton, 10 varieties of apples, 3d p ..... Trans.
B. B. Olds, Clinton, show of autumn apples, 1st p, dip., and 5 00
F. C. Curtiss, Rocky Run, show of autumn apples, 2d p 3 00
Thos Howland, Kenosha, show of winter apples, 1st p, dip., and 5 00
B. B. Olds, Clinton, show of winter apples, 2d prem 3 00
F. C. Curtiss, Rocky Run, show of winter apples, 3d p 2 00
Geo. P. Peffer, Pewaukee, show of pears, 1st p., dip, and 5 00
Geo. P. Peffer, Pewaukee, show of grapes, 1st prem 3 00
J. H. Kimball, Kenosha, show of foreign grapes ..... Dip. and Trans.
George P Peffer, Pewaukee, best variety of fruits ..... Dip. and 10 00

JUDGES.—L. P. Chandler, Madison; J. W. Rist, Plover; Jas. L. Tubbs, Elkhorn.

CLASS 30.—FRUITS BY PROFESSIONAL CULTIVATORS.

P. B. Spaulding, Beloit, variety of apples, 1st p. Dip. and 7 00
Geo. J. Kellogg, Janesville, best and greatest variety of apples, 2d p 5 00
P. B. Spaulding, Beloit, best 20 varieties of apples adapted to the North-west, 1st p 5 00
P. B. Spaulding, Beloit, show of autumn apples, 1st p 5 00
Tuttle, Clark & Son, Baraboo, show of winter apples ..... 1st p. Dip. and 5 00
F W. Loudon, Janesville, show of winter apples, 2d p 3 00
F. W. Loudon, Janesville, best and greatest variety of pears ..... 1st p. Dip. and 5 00
J. S. Stickney, Wauwatosa, two varieties of pears, 1st p 5 00
P. B. Spaulding, Beloit, two varieties of pears, 2d p 3 00
F. W. Loudon, Janesville, greatest variety of grapes, 1st p 3 00
Isaac Atwood, Lake Mills, display in variety of grapes, 2d p 2 00
[The ten varieties exhibited by Mr. Atwood are the most popular for the North-west, most magnificently grown, and of superior excellence.]
L. P. Chandler, Madison, display in variety of grapes, 3d p ..... Trans.
F. W. Loudon, Janesville, fruits of all kinds, by one exhibitor ..... 1st p. Dip. and 10 00
J. C. Plumb, Madison, collection of sealed fruits 1st p 5 00
J C. Plumb, Madison, collection of ten varieties of apple-trees, adapted to this climate, 1st p. Dip. and 5 00

Under the above head, there are five entries, all showing great vigor of growth especially those by Messrs. Tuttle, Clark & Sons, Baraboo, J. S. Stickney, of Wauwatosa, and L P. Chandler, of Madison. J. C. Plumb, of Madison, exhibited fifteen varieties of three year old trees, which, for vigor of growth, abundance of roots, and adaptation to our climate, are not excelled.

JUDGES.—F. C. Curtis, Rocky Run; E. Wilcox, Trempealeau; J S. Shearman, Rockford, Ill.

CLASS 31.—WISCONSIN WINES.

C. Hanford, Emerald Grove, assortment of wines ..... 1st p. Dip. and
A. Sherman, La Prairie, one bottle of white currant wine, 1st p. 3 00
Geo. P. Peffer, Pewaukee, sample of grape wine, 1st p 5 00
C. Hanford, Emerald Grove, sample of grape wine, 2d p 3 00
Geo. P. Peffer, Pewaukee, sample rhubarb wine, 1st p 3 00
M. L. Ladd, Millard, sample of rhubarb wine, (two bottles,) 2d p 2 00
C. Hanford, Emerald Grove, three bottles of strawberry wine, best ..... Trans.

AWARDED BY EXECUTIVE COMMITTEE.

Dr. H. Schroder, Bloomington, Ill., six bottles of superior grape wine ..... Dip.

JUDGES.—F. C. Curtis, Rocky Run; J. S. Shearman, Rockford, Ill: Thos. D. Plumb, Madison.

CLASS 32.—FLOWERS BY NON-PROFESSIONAL CULTIVATORS.

Josephine Peffer, Pewaukee, display of quality and variety of named flowers, 1st p 2 00
Miss M. L. Plumb, Madison, display of wild flowers — only specimen presented — very good 3 00
Josephine Peffer, Pewaukee, display of dahlias, 1st p 2 00
Josephine Peffer, Pewaukee, display of verbenas, 1st p 2 00
Josephine Peffer, Pewaukee, display of asters, 1st p 2 00
Josephine Peffer, Pewaukee, display of phloxes—best specimens of phloxes—very good display 2 00
Josephine Peffer, Pewaukee, display of petumas, 1st p 2 00
Josephine Peffer, Pewaukee, display of pansies, 1st p 2 00

JUDGES.—G. W. Hazleton, Portage City; Mrs. G. W. Hazleton; Mrs. G. W. Campbell.

CLASS 33.—FLOWERS BY PROFESSIONAL CULTIVATORS.

G. J. Kellogg, Janesville, best show of small evergreens, 1st p 5 00
F. W. Loudon, Janesville, best and greatest variety of green-house plants, 1st p 3 00
F. W. Loudon, Janesville, twelve varieties of geraniums, 1st p 2 00
J. S. Shearman, Rockford, Ills, greatest number of dahlias, 1st p 3 00
J. S. Shearman, Rockford, Ills., twelve named dahlias, 1st p 2 00
J. S. Shearman, Rockford, Ills., seedling dahlias 1st p 2 00
F. W. Loudon, Janesville, six fuchsias, 1st p.. Trans.
J. S Shearman, Rockford, Ills, display of quality and variety of roses, 1st p 3 00

JUDGES.—S. G. Benedict, Madison; Mrs. R. Hadden, Elba; Mrs. Tappan, Madison; Mrs. Foss, Janesville; N. W. Harrington, Delavan.

DIVISION C—MACHINERY, MANUFACTURES, AND WORKS OF ART.

Machinery Department.

CLASS 35.—MACHINERY AND IMPLEMENTS FOR AGRICULTURAL PURPOSES.

C. E. Steller, McGregor, Iowa, bog cutter, 1st p Dip.
John Webster, North Prairie, bog cutter, 2d p. Trans.
Shep. L. Sheldon, Madison, Ohio Grain Drill, 1st p ..... Medal.
E. W. Skinner, Madison, two horse power, 1st p Dip.
B. & W. Burnham, Battle Creek, Mich., one 4 horse sweep power ..... Dip.
E. W. Skinner, Madison, farm roller .... Dip or 5 00
J. R Davis, Washington, Iowa, washing machine. Dip.
Jas. Adams, Janesville, washing machine ... Cert Ex.
Rock River Iron Works, Janesville, threshing machine, power included, 1st p ..... Dip.
W. W. Burson, Rockford, Ills., grain binder, 1st p ..... Dip.
J. D. Locke, Janesville, grain binder attached to reaper ..... Cert. Ex.
J. Behel, Rockford, Ills., rotary grain binder attached to J. H. Manney's Combined Reaper and Mower ..... Cert. Ex.
F. F. Blood, Janesville, farm gate, 1st p ..... Dip.
A. Blood, Janesville. garden gate, 1st p ..... Dip.
Wm. M. Jones, Horicon, D. W. Hall & Co.'s Broadcast Seeder and Cultivator, combined, 1st p ..... Dip.
John Doak, Keithsburg, Ills., corn planter, 1st prem ..... Dip.
B. F. Fields, Sheboygan Falls, cultivator, 1st p. 3 00
R. Hitchcock, Janesville, two horse wheel cultivator, 2d p 2 00
H. Mitchell & Co, Racine, lumber wagon, 1st p Dip.
J. S. Owens, Evansville, improved two horse wagon—premium for the improvement—1st prem ..... Cert. Ex.
J. C. Tranez, Tafton, steel crossing plow, 1st prem ..... Cert. Ex.
N. H. Pierce, Waupun, subsoil attachment, (worthy,) ..... Cert. Ex.
Chas. Foster, Rockford, sulky plow for general use ..... Cert. Ex.
Lepper & Morse, Fond du Lac, center draft plow ..... Cert. Ex.
C. Foster, Rockford, Ills., sulky plow ..... Cert. Ex.
Jas. Tomlinson, Racine, double stubble plow. Cert. Ex.
S. L. Sheldon & Bro., Madison, combined self-raking reaper and mower ..... Dip.
Andrew Proudfit, Madison, Wood's Self-Raking Reaper ..... Dip.
Andrew Proudfit, Madison, Wood's Two Wheel Mower ..... Dip.
L. J. Bush, Milwaukee, Kirby's Hand Raking Reaper, 1st p ..... Dip.
S. H. Hunsberger, Ottawa, Ills., self-raking reaper and mower ..... Cert. Ex.

N. Stillman, Chicago, Mallory & Sandford's Flax and Hemp Machine.....Dip.
Chas. Foster, Freeport, Ills., cider mill, 1st p. Dip.
L. E. Porter, Lake Mills, apple stirrer.....Dip.
W. Fulding & Co., Chicago, spring tooth rake, 1st p..... 3 00
S. E. Ament, Oswego, Ills., handled horse hay rake, 2d p..... 2 00
C. P. Dickey, Racine, fanning mills, (S. F. Leflin's patent,) 1st p.....Dip.
I. Nash, Janesville, fanning mills, 2d p..... 3 00
T. G. & M. W. Palmer, Chicago, hay stacker, 1st p.....Dip.
L. J. Bush, Milwaukee, feed cutters for horse power, 1st p.....Dip.
E. S. Barrows, Janesville, Cumming's Patent Cutting Box, Horse Power, 2d p..... 3 00
H. C. Davis, Madison, straw cutter, hand power. Dip.
F. G. & M. W. Palmer, Chicago, corn stalk and straw cutter, 2d p..... 2 00
Andrew Proudfit, Madison, Westcott's Churn and Butter Worker.....Dip.
H. Thompson, Palmyra, churn power, (on power).....Cert. Ex.
J. P. Corbine, Whitney's Point, Nonpareil Butter Worker.....Dip.
L. A. Hulse, Geneva, Ills., Horse and Hand Champion Corn Sheller.....Dip.
L. J. Bush, Milwaukee, corn sheller, (Burnell's patent,) 2d p.....Trans.
F. G. & M. W. Palmer, Chicago, horse hay pitchfork.....Dip.
Calkins & Wing, Merton, horse hay fork, 2d p..Trans.
Fowler, Wood & Berry, Upper Sandusky, Ohio, corn husker.....Cert. Ex.
Fowler, Wood & Berry, Upper Sandusky, Ohio, hay gatherer.....Cert. Ex.
C. Williams, Beloit, clothes wringer.....Dip.
J. De Lany, Madison, clothes wringer, "New World" 2d p.....Trans.
S. M. Gilmore, Janesville, ock drilling machine.....Dip.

JUDGES.—H. P. Hall, Madison; Richard Richards, Racine; other name not reported.

CLASS 36.—MACHINERY FOR MANUFACTURING PURPOSES.

H. M. Wright, Janesville, Grover & Baker's Sewing Machine.....Medal.

JUDGES.—A. B. Goodrich; W. Lester, Janesville; A. W. Case, Racine.

CLASS 37.—MACHINERY FOR THE MANUFACTURE OF SORGHUM.

E. W. Skinner & Co., Madison, sugar mill and apparatus, complete.....Silver Medal.
E. W. Skinner & Co., Madison, sweep sugar mill, patent adjustable, 1st p.....Dip.
W. S. Follunsbee, Janesville, ten gallons black African imphee syrup, 1st p..... 5 00
E. Wilcox, Trempealeau, sample imphee syrup, (not entered,).....Honorable mention.

Your Committee find adjustable geared power sugar cane mills presented by E. W. Skinner & Co., of Madison, and by the Rock River Iron Works, of Janesville, each of which we find to be a very superior mill, and well adapted for the use intended.

Respectfully submitted

JUDGES.—J. O. Eaton, Lodi; A. G. Tuttle, Baraboo; E. Wilcox, Trempealeau.

CLASS 38.—CARRIAGES, STOVES, HARNESSES, &c.

P. L. Smith, Janesville, riding buggy, 1st premium, diploma, or..... 5 00
L. F. Hathaway, Janesville, one light single shifting top buggy, 1st p., dip., or..... 7 00
L. F. Hathaway, Janesville, one top buggy, 2d prem..... 4 00
P. L. Smith, Janesville, brette carriage, 1st p., dip., or..... 10 00
P. L. Smith, Janesville, fam'ly carriage, 2d p.. 5 00
P. L. Smith, Janesville, one trotting wagon, 1st p., dip., or..... 5 00
P. L. Smith, Janesville, one pleasure wagon, 1st p..... 5 00
P. L. Smith, Janesville, display carriages, 1st prem.....Medal.
E. S. Barrows, Janesville, four Stewart's cooking stoves, 1st p., Dip., and..... 3 00
E. S. Barrows, Janesville, five parlor coal stoves, 1st p.....Dip.
E. S. Barrows, Janesville, three parlor wood stoves, 1st p.....Dip.
Robert Hodge, Janesville, open buggy, 2d p.... 3 00
J. B. Hyzer, Janesville, one heat radiator.....Trans.
Daniel Daggett, Milwaukee, two rolls of wire screening.....Dip.
A. P. Grover, Eureka, one grain cradle, 1st p..Dip.
Simon Guthrie, Waukau, grain cradle, 2d p. Trans.

JUDGES.—Geo. Lawrence, Waukesha; John McCulloch, Janesville; R. B. Hammond, Waukesha.

CLASS 39.—CABINET WARE, COOPERAGE, WILLOW WARE, LEATHER, BOOTS AND SHOES, INDIA RUBBER GOODS, &c.

W. C. Ritchie & Co., Beloit, display of willow ware, 1st p., dip. and..... 5 00
Rupee & Groneman, Rockford, Ills., spring bed bottom.....Dip

JUDGES.—Orrin Guernsey, Janesville; P. Schmitz.

CLASS 41.—MUSICAL INSTRUMENTS.

J. L. Darling, Janesville, square piano, 1st p., dip., and..... 3 00
D. D. Wilson, Janesville, parlor piano, dip. and..... 3 00
D. D. Wilson, Janesville, American organ ...Dip.
J. L. Darling, Janesville, cabinet parlor organ. Dip.
J. L. Darling, Janesville, melodeon, (Prince & Co.'s,).....Dip.
J. R. Eldridge, Janesville, melodeons, dip. and 3 00

JUDGES.—A. C. Davis, Madison; Mrs. E. A. Tappan, Madison; L. C. Estee.

CLASS 44.—TEXTILE FABRICS, CLOTHING, &c.

Jas. Cotton, Burlington, white flannel, home manufactory, 1st p..... 5 00

JUDGES.—Orrin Guernsey, Janesville; P. Schmitz; More Spears, Black Earth.

CLASS 45.—DOMESTIC MANUFACTURES.

Mrs. D. Barless, Emerald Grove, one wrought counterpane..... 2 00
Mrs. F. Newbern, Johnstown Centre, knit counterpane..... 2 00
Mrs. O. M. Lay, Rock Prairie, knit counterpane..... 2 00
Mrs. A. E. Parmlee, Centre, patch quilt..... 2 00
Mrs. Chauncey Ross, Beloit, patch quilt.....Trans.
Rosanna Gilmore, Janesville, double carpet coverlid, 1st p..... 3 00
Mrs. Wm. Spaulding, Janesville, rag carpet... 3 00
D. L. Hopson, Tiffany, wool carpet..... 4 00
J. Child, Lima Centre, one dozen towels, 1st p. 2 00
J. Childs, Lima Centre, 4 linen table spreads.. 2 00
J. Childs, Lima Centre, one pound of linen thread..... 2 00
A. J. Warner, Shopiere, wool mittens, 1st p... 1 00
Miss Emeline Childs, Lima Centre, one pair of mittens..... 1 00
Geo. J. Kellogg, Janesville, three pairs of children's cotton stockings, 1st p..... 1 00
Miss Augusta Robinson, Lima Centre, one pair of socks, (juvenile class,) 1st p..... 2 00
Mrs. M. M. Flint, Beloit, machine knit hosiery. 5 00
Mrs. I. S. Newton, Middleton, one pair wool stockings, 1st p..... 1 00
Mrs. L. H. Child, Lima Centre, wool blanket.. 2 00
Mrs. I. S. Newton, Middleton, gent's shirts.... 2 00
Mrs. Smith, Beloit, rag hearth rugs..... 1 00
James Catton, Burlington, ten yards of woolen cloth..... 3 00

JUDGES.—Wm. A. Laurence, Janesville; Mrs. Orrin Guernsey, Janesville, Mrs. H. M. Powers, Dartford; Mrs. L. M. Hammond.

CLASS 46.—MILLINERY.

Mrs. J. R. Beals, Janesville, silk bonnet, dip. or..... 3 00
Mrs. J. R. Beals, Janesville, bonnet flowers, 1st p..... 2 00
Mrs. J. R. Beals, Janesville, case of millinery goods, dip. and..... 5 00

JUDGES.—Mrs. E. W. Skinner, Madison; Mrs. I. Miltimore, Janesville; Mrs Goodspeed, Janesville.

CLASS 47.—ORNAMENTAL NEEDLE WORK.

Mrs C. H. Clark, Milwaukee, best ottoman cover, plain..... 2 00
Mrs. O. D. Bruce, Janesville, second best ottoman cover, plain..... 1 00
Anna W. Allen, Janesville, best ottoman cover, raised..... 2 00
Mrs. C. H. Clark, Milwaukee, second best ottoman cover, raised..... 1 00
Mrs. M. L. Goodrich, Milwaukee, best crotchet tidy..... 2 00
Mrs. I. S. Newton, Middleton, best knit tidy.. 2 00
Mrs Mary A. E. Campbell, Janesville, second best knit tidy..... 1 00
Mrs. C. H. Clark, Milwaukee, best chair cover. 2 00
Mrs. C. H Clark, Milwaukee, best worsted embroidery..... 2 00
Mrs. O. D. Bruce, Janesville, best wrought slippers..... 2 00
Mrs. M. A. Goodrich, Milwaukee, second best wrought slippers..... 1 00
Mrs. A. Sutherland, Janesville, best fancy hair work, (hair wreath,)..... 2 00
Mrs. M. A. Bachelder, Fond du Lac, best embroidered scarf..... 3 00
Mrs. M. A. Goodrich, Milwaukee, best embroidered shawl..... 3 00
Mrs. L. Parle, Juneau, best exhibition of wax fruit..... 5 00
Miss Minnie Sweet, Milton, best exhibition of wax flowers..... 3 00
Anna W. Allen, Janesville, second best exhibition of wax flowers..... 2 00
Mrs. I. S Newton, Middleton, second best hemstitched handkerchief..... 1 00
Mrs. M A. Goodrich, Milwaukee, second best netted tidy..... 2 00
Mrs. M. E. Stuart, Janesville, two cases of sea weed and shells, from the Pacific coast.... Dip.

JUDGES.—Mrs. O. S. Willey, Madison; Mrs. Chase, Janesville; Mrs. C. W. Olney, Madison.

CLASS 48.—WORKS OF ART.

Mrs. H. P. Fales, Janesville, oil paintings, "Figures"..... Dip.
Miss Emily C Quiner, Madison, oil paintings, "Figures," 2d p..... Trans.
Mrs. E J. Goodspeed, Janesville, landscape painting..... Dip.
Mrs. H. P. Fales, Laprairie, landscape oil painting, 2d p..... Trans.
C. L. Martin, Janesville, collection of oil paintings by old masters, 1st p..... 5 00
Miss Emily C. Quiner, Madison, oil painting, (portrait,)..... Dip.
Mrs. H. P. Fales, Janesville, oil painting, (portrait,) 2d p..... Trans
Miss E. C. Quiner, Madison, fruit painting.... Dip
Miss E. C. Quiner, Madison, flower painting.... Dip.
Mrs. E J. Goodspeed, Janesville, collection of original oil paintings dip. and..... 5 00
Thompson & Glass, Janesville, ambrotypes..... Dip.
J. R. Porter, Janesville, plain photographs ... Dip.
J. A. Tice, Janesville, colored photographs ... Dip.
Miss Grace H. Stone, Sharon, crayon drawings. Dip.
S. D. Clark, Whitewater, specimen of plain and ornamental penmanship..... Dip.
Mrs. Treat, Janesville, drawing in india ink... Dip.
H. Rulison, Janesville, specimen of pen drawing..... Dip.
S. W. Martin, Madison, specimen of pen drawing, &c..... Dip.
N. W. Wilcox, Adrian, Mich., specimen of pen lettering, (advertisement,)..... Dip

JUDGES.—Mr. Spencer, Milwaukee; J. M. May, Janesville; John R Bunnell.

CLASS 49.—MISCELLANEOUS ARTICLES.

Mrs. A. G. Clapp, Ripon, improved dress model. Dip.
E. B. Godfrey, Oshkosh, grave-yard fence..... Dip.
E B. Godfrey, door-yard fence..... Dip
Booth & Griffith, Janesville, Hubbard's Patent Stove-pipe Damper..... Dip.
Wm. Booth, Janesville, Hyatt's Patent Knife and Scissors Sharpener..... Dip
O. Taylor, Freeport, Ills., Wm. Hull's Patent Copper Scroll Lightning Rod..... Dip.
L. P. Cornell, Belvidere, Ills., Sagar's Patent Wagon Brake..... Dip
S. N. Taylor, Hericon, one threshing machine coupling or knuckle..... Dip
Mrs. R. H. Adams, Elba, agricultural seed wreath..... Dip.
Jonas Trumble, Janesville, patent shoe-bench. Dip.
H. L. Webb, Mukwonago, model sheep-rack... Dip
Robert Hodge, Janesville, patent axles and evener..... Dip
A. Brown, Ripon, Robinson's Patent Gate Latch and Catch..... Dip.
R. Brodie, Janesville, water proof patent leather polish..... Cert. Ex.
J. W. Smith, Janesville, combined foot-stove and lantern, 1st p..... Dip.
B. S. Hoxie, Cookville, Kidder's Compound Hive..... Dip.
Mrs. M. M. Flint, Beloit, knitting machine.. .. Dip.
E. Tripp, Chicago, Ills., Atwater's Cattle Pump. Dip.
Fairbanks, Greenleaf & Co., Chicago, Ills., display of scales..... Dip.
J. B. Walt, Waltsville, Wright's Patent Pendulum Spinning Wheel..... Dip.
J. B. Walt, Waltsville, clock reels..... Cert. Ex.
G. R. Curtis, Janesville, case of toilet goods... Dip.
C. H. Clarke, Milwaukee, case of steel letter cutting and die sinking..... Dip.
C. H. Clarke, Milwaukee, embossing seal press. Dip.
C. H. Clarke, Milwaukee, two frames of fancy stencils..... Dip.
C. H. Clarke, Milwaukee, seventeen stenciling gravings..... Dip.
C. H. Clarke, Milwaukee, gilded weather ram. Dip.
J. H. Kimball, Kenosha, wringer mop, 1st p... Dip.
R. H. Palmer, Rockford, Ills., Union pump.... Dip.
W. H. Greenman, Whitewater, one case of dentistry..... Dip.
George Craven, Beloit, case of stuffed birds. .. Dip.
Chas. Frank, Janesville, French sheep, fancy. Cert. Ex
E. R. Doty, Janesville, door and door bell.. Cert. Ex.
J. G. Garrison, Salem, Iowa, hand loom..... Dip.
A. Van Patten, Fond du Lac, Shepherd's Patent Improved Blind Hinge..... Cert. Ex.
L H Culver, Janesville, sample tobacco..... Dip.
Miss Chauncey Ross, Beloit, specimen of "cone work"..... Dip.
Jas. Bullard, Evansville, Kidder's Bee Hive.... Dip.
F. F. Blood, Janesville, shell pyramid. .. .. Dip.

JUDGES.—M. H. Powers, Dastford, Chn.; other names not reported.

CLASS 51.—LADIES' EQUESTRIANSHIP.

Mrs. Chauncey Stevens, Janesville, ladies' equestrianship, 1st p..... 20 00
Miss M. M Taft, Brodhead, ladies' equestrianship, 2d p..... 15 00
Miss Laura Furlong, Janesville, ladies' equestrianship, 3d p..... 10 00

JUDGES.—His Excellency, the Governor; John R. Bennett, Janesville; W. A. Johnson, Janesville; J. H. Warren, Albany.

THE ANNUAL ADDRESS, BY GOV. WRIGHT, Was an able and eminently successful effort—entertaining, instructive and eloquent. The Governor is a pleasing and very effective speaker. For an hour and a half he held the vast audience who crowded about the speakers' stand literally enchained, by the logic, wit, pathos and persuasive eloquence of his masterly oration. It is complained of by a now-and-then over-sensitive

friend of agriculture, that it savored too much of politics; but to our mind it was as *non-partizan* as was the Farewell Address of George Washington. Political to some extent, to be sure—how could it have been otherwise, since the theme was "The Relation of Labor to Government"—but political in the highest and best sense of its thoughts and arguments, such as could only have been prompted by a comprehensive and lofty statesmanship.

The Address was extemporaneous, and since no partial report could do the author justice, we prefer to let it remain unpublished, until the promised copy is furnished by the Governor himself.

All in all, we are constrained to reiterate the declaration, that the Fair was a success. The serious drawbacks were the bad weather, the failure of appointed judges to report themselves, and last—and most serious—

THE RAILROAD SWINDLE,

by reason of which, not only scores of exhibitors and thousands of people were prevented from attending, but a considerable proportion of those who did go were compelled to pay full fare on return. We heard no complaints of this sort bearing upon any of the roads other than the Chicago and North-Western, the Milwaukee and Prairie du Chien, and the Racine and Mississippi; and inasmuch as some of the persons victimized have charged upon the Society that its arrangements were not up to the mark of its advertisements, which declared that persons attending the Fair would be returned free, we herewith publish the letters received by us from the superintendents of the roads above named, prior to the publication of the Second Edition of the Premium List and the general Poster:

MR. DUNLAP'S LETTER.

GENERAL SUPERINTENDENT'S OFFICE,
CHICAGO AND NORTH-WESTERN RAILWAY,
CHICAGO, Aug. 10, 1864.

J. W. Hoyt, Esq., Sec. W. S. A. S.:

DEAR SIR:—Your favor of the 8th inst., addressed to Mr. Smith, requesting half fare rates for people attending the 11th Wisconsin State Fair, to be held at Janesville, in September next, and also free transportation for articles and products sent for exhibition, was received. In reply I will say, that the privileges which you ask will be granted, and persons and property will be taken to and from the Fair, from all points in Wisconsin, on the terms proposed.

Yours, truly,
GEO. L. DUNLAP, Gen'l Sup't.

MR. JERVIS' LETTER.

MILWAUKEE AND PRAIRIE DU CHIEN RAILWAY,
SUPERINTENDENT'S OFFICE,
MILWAUKEE, Aug. 9, 1864.

J. W. Hoyt, Esq., Madison:

DEAR SIR:—Yours of yesterday is received. This Company will make the usual concessions to farmers, as heretofore, at their State Fairs, if one is held during the present season.

Very respectfully, WM. JERVIS, Sup't.

[The usual concessions were freight *free*, and passengers at half fare.—ED.]

MR. CAMPBELL'S LETTER.

RACINE AND MISSISSIPPI RAILROAD,
SUPERINTENDENT'S OFFICE,
RACINE, Aug. 9, 1864.

J. W. Hoyt, Esq., Sec. W. S. A. S.

DEAR SIR:—Yours of the 8th inst., in relation to the State Fair on the last of September is received.

The Racine and Mississippi Railroad will carry passengers and products to the Fair, or rather to Clinton Junction, at half rates; that is, charging full rates, and giving return checks and certificates.

Respectfully yours,
JOHN C. CAMPBELL, Gen'l Sup't.

It will thus appear that the Secretary was not at fault in the matter of arrangements. We had taken great pains to have everything right and fairly understood. But lest there might be delay in issuing orders—as had been the case in previous years—some ten days before the opening of the Fair, we made urgent requests of all the railroad superintendents to issue their notices and instructions early, so that no single agent could claim that he had no orders to sell half-fare tickets. Responses came to these requests, saying either that instructions had been, or immediately would be, given to all agents; and yet, persons taking the cars on these roads as late as Tuesday morning of Fair week were told by ticket agents that they had no authority to sell tickets of that sort. The parties came to our office on the grounds and entered complaint, and we then telegraphed to the superintendents that their contract with the Society was not being fulfilled, even at important stations, like Racine, Oshkosh, and Fond du Lac. Assurances again came that orders had been

issued. Our only resort, then, to save the patrons of the Society from fraud was to print and issue the following certificates, stamped with the name of the Secretary, on the Fair grounds:

The bearer of this ticket has been in attendance at the State Fair, and, by arrangement with the Superintendent of your railroad is entitled to return *Free*.
J. W. HOYT, Sec'y W. S. A. S.
JANESVILLE, September, 1864.

But even this certificate was in many cases disregarded, and the money extorted by threats to put the passengers off the train.

As bearing directly and conclusively upon this subject, we take the liberty of quoting the high authority of Col. B. R. Hinkley, President of the Society, and of the Hon. David Williams, President elect. The former told us that he was himself witness of scenes on the North-western Railroad that should subject either its managers or their employees to the severest condemnation. Not only visitors, but even exhibitors, with their exhibitors' tickets in their hands, and lady exhibitors at that, were subjected to the alternative of paying their fare or being put off the train.

As we have the written words of Mr. Williams, we are able to publish his statement in his own language, to wit:

I will give you some facts that came under my observation. On Thursday of Fair week a number of passengers took tickets at Clinton, for Janesville. The conductor, on taking those tickets, was informed by the passengers that they were going to the Fair, and they asked for return tickets. At first he gave return checks, but before he got through the car, he refused to give any more, giving, as a reason, that he was ordered not to give them. On the return of these passengers, on the Friday following, those who had return checks the conductor passed; but of those to whom he had refused them, he demanded full fare. Most if not all of those had provided themselves with the return tickets issued by the Society. Of the ladies, the old men, and the children, he got pay. Some men who refused to pay were left undisturbed; others, I am informed, were put off the train. I know the train was twice stopped where there was no station, and those who went forward to learn the cause informed me that in both cases men and women were forcibly ejected from the train. I paid my fare, as I wished to avoid an altercation, feeling too indisposed to risk any excitement. This train was in charge of the same conductor who went with Thursday's train.

I have been informed that the Milwaukee and Prairie du Chien Railroad refused transportation for stock and articles going to the Fair; but of this you are probably better informed than I am.

Respectfully, DAVID WILLIAMS.

Of course the railroad companies were legally as well as morally bound to return these persons free, and the money extorted could be recovered. But the recovery would cost more than the amount saved, and so nobody has thought of entering a prosecution. It was none the less a fraud, however, and, since it must have the effect to discourage attendance at our future fairs, we have felt bound to make this plain statement of the whole case.

In other states, the railroad companies issue round trip excursion tickets at half rates, and are not so nice about waiting up to the last moment before the opening of the Fair, either. Why the roads in Wisconsin, dependent as they are upon the progress of agriculture, which it is the office of our exhibitions to foster and advance, should pursue a narrow and illiberal policy towards her industrial associations, is beyond our comprehension. Let us hope that next year there will be an improvement in this important regard, and that the Fair of 1865 will, in all respects, be a triumphant success.

THE ELECTION OF OFFICERS FOR 1865

was held at the Hyatt House, on Thursday evening, September 29th, with the following result:

President—David Williams, of Walworth County.

Vice Presidents—J. I. Case, Racine Co.; Levi B. Vilas, Dane Co.; Keyes A. Darling, Fond du Lac Co.

Secretary—J. W. Hoyt.

Treasurer—David Atwood, of Dane.

ADDITIONAL MEMBERS EXECUTIVE COMMITTE.

C. H. Williams, Sauk Co.; C. Loftus Martin, Rock Co.; J. H. Warren, Green Co.; J. O. Eaton, Columbia Co.; Eli Stilson, Winnebago Co.; G. H. Stewart, Dodge Co.; Edward D. Holton, Milwaukee Co.

According to the Constitution, the following gentlemen will also be members of the Executive Committee for the coming year:

EX-PRESIDENTS, EX-OFFICIO MEMBERS:

Harvey Durkee, Kenosha; J. F. Willard, Chicago; B. R. Hinkley, Summit.

In justice to the retiring President, Col. B. R. Hinkley, whose earnest devotion to the interests of the Society has entitled him to the gratitude of all the people of the State, it should be said that but for a peremptory declaration that he could not possibly consent to serve the Society as President the coming year, he would have been unanimously re-elected. At the close of the meeting, highly complimentary resolutions were passed, thanking him for the ability, zeal and fidelity with which he had labored for the Society's interests. They were warmly applauded, and unanimously adopted. The Colonel made an eloquent response, declaring his purpose to continue through life to labor with all his might for the industry of Wisconsin.

THE EVENING MEETINGS.

Owing to a misunderstanding as to the use of the Court Room, which it was supposed had been secured for the Society, but two of the three meetings proposed were held, to wit: the Convention of Fruit Growers, and the Wool Growers' Convention. Both of these were largely attended, and the result cannot but be favorable. A report of the former will be found in the Horticultural Department of this No.; the Wool Growers' Convention will doubtless be reported in our next. Our duties as Secretary of the Society so entirely occupied us that we were unable to attend either of the meetings.

Columbia Tobacco.

[From our South American Correspondent.]

EL ARBOLITO, UNITED STATES OF COLUMBIA, September, 1864.

MR. EDITOR:—Along the banks of the upper Magdalena, in the heart of the Andes, is extensively and profitably grown what is there known as the "Ambalema Tobacco." It is exported to Bremen, and there made into cigars, with Cuba leaf wrappers, shipped to Havana, where they are packed in boxes, perfumed and labeled, and then sent to Europe and the United States, and sold as Royal Havanas, Regalias, Principes, Cuba Sixes, &c. It is only a little inferior to the genuine Cuba, and if scented, as is generally done, with the leaf of a wild shrub that grows in abundance in the neighborhood of the tobacco, the counterfeit, if such it is, is almost complete; so that we Andine "*fumadores*" enjoy for a cent what in North America costs a dime.

This tobacco delights in a light, dry soil, about equally compounded of vegetable mold, clay and sand; and it is probable, would do well in the oak openings of Southern Wisconsin. At least, every zealous friend of the "weed" could grow for his own pipe, and a bowl to puff with his neighbor, on a long winter evening, if no more. It was tried last year in Kentucky, and with satisfactory results.

The cultivators in Columbia do not top it, as is the practice in Virginia, Missouri, and other tobacco states, but suffer it to run to seed, picking off the single leaves as they are ripe. As it receives a shower nearly every night, in its native country, it will probably be the better of a slight evening sprinkle each day, elsewhere. Like the Cuba, it may degenerate after the first crop; but fresh seeds can be procured for a trifle. The soil in which it grows here is identical with that of many localities in the United States, and the temperature is about the same as summer heat there, but the atmosphere is a little damper; so it is by no means certain that it will not, for a considerable time, at least, maintain its original qualities.

I enclose a small quantity of the seeds, for trial. Out of abundant caution, it may not be amiss to start the plants early in the season, in the hot-house, or a warm room, of even temperature, and keep them there until all danger of chilly spring days be past.

FUMADOR.

"SWEEPSTAKES, 2D."—A thoroughbred Spanish Merino Buck. Sired by Mr. Hannan's (of Vermont) Sweepstakes"; raised by Mr. Cutting, of Shoreham, Vermont; now owned by Mr. James Holden, of Heart Prairie, Walworth County, Wisconsin, where he is kept for stock.

This buck is said, by those who ought to know, to be one of the finest in this State.

THE BEE-KEEPER.

The Best Hive?—One Way to get at it.

MR. EDITOR:—I suppose that by the interchange of thought and the bringing out of new ideas we a.e to arrive at proper conclusions: and this is the principal feature of our department; but, if an occasional broadside is let off against patent hives, and a sharp rejoinder from some one interested in them is indulged in, it is taken in good part, and the general reader can get some valuable suggestions. Of course we are all interested in the best method of keeping bees to make them the most profitable; and as the hive has much to do with this, it must not be entirely left out, for I have no doubt that there may be really five or six good patent hives, while all the rest, perhaps, are worse than a common box to the bee-keeper; and with a proper knowledge of the wants and habits of the bee, one may be successful with either of these. But some may present more and better points than the others; and if by comparing hives, and the mode of treatment, with the results, we can get at the correct principles in hives, and the care of bees in our climate, it is all we want; for we cannot expect to be perfect in either. We hope to bring out all these points for discussion at our next Convention, and trust that those who know the most will not keep silent any longer.

And now, one word to the readers of the FARMER: It is our own WISCONSIN FARMER, and we can make it just what we wish, if we wish to do right; but we cannot expect the proprietors to publish it at the very low price of one dollar, and give away hundreds of dollars' worth of premiums, every year,

if we withhold our support, or grudgingly pay up when called on, when we know that its cost to them is nearly double what it was two years ago. B. S. HOXIE.

COOKSVILLE, August 10, 1864.

That Honey.

MR. EDITOR:—From one of my stocks of Italian bees I have taken, this season, twenty-six boxes of surplus honey, such as I sent you, or one hundred and thirty pounds. Although this is not a very good locality for bees, yet I should like to know if any stock of bees in this State has produced more honey, in boxes of five pounds each.

J. W. SHARP.

DOOR CREEK, August 31, 1864.

THE HORTICULTURIST.

Mr. A. G. Hanford.

How little we thought, when, in the making up of our last number, we found it necessary to postpone for a month the publication of several articles written by the able and indefatigable Corresponding Secretary of the Horticultural Department, but forwarded a little too late for insertion then, that those were the last words he would ever pen for the advancement of his favorite profession. And how difficult, now that he has really passed to that bourne whence no traveller returns, will it be for thousands of our readers who have been accustomed to look to him for authority in the culture of fruit, plants and flowers, to credit the announcement that A. G. Hanford is dead!

So full of energy, that never for a moment abated its force, so ever aglow with a beautiful enthusiasm for his chosen work, so rich in hopefulness and an unfaltering determination to give added utility, grace and dignity to the profession he so signally adorned, and withal so eminently successful was he in his labors, that to us it seemed impossible, for a time, that he should thus prematurely have fallen. But, alas! Death is no respector of persons, cutting down the useful and the noble as remorselessly as the base and useless man. Of this one, however, it could be most truthfully said, he was ripe for the harvest.

We have not now the data for a biographical sketch, and can only state, in general terms, that many years ago he came from New York, where he was engaged in mercantile business, and located at Waukesha, in this State, where he continued to reside until 1861, when, with a view to the better health of his amiable, accomplished and most excellent companion, he purchased a large interest in the Columbus (Ohio) Nurseries, and removed to that place. For the larger portion of the time during which he lived in Wisconsin, his chief attention was given to the cultivation of fruits, to the introduction of approved varieties among the people of the Northwest, and to the dissemination of a knowledge of the established principles of his profession. The readers of the FARMER need not be told that in this he was preeminently successful. No horticulturist of the West has ever been more successful in actual practice, none has established a better reputation for correctness of knowledge and integrity in all business transactions, and none has made his pen more useful in the diffusion of valuable information derived from laborious and carefully conducted experiments. In our estimation, he was the best living authority on all questions relating to the culture of fruits in the Northwestern States.

It was because of this high estimate of his ability and integrity that we secured his valuable aid as Corresponding Editor of the Horticultural Department of this journal at the beginning of the year 1862, when the exclusive management of the FARMER first passed into our control. He had always been an occasional contributor, but since that date has furnished an extra amount of valuable matter for that important department.

He has also contributed quite regularly to several other periodicals, so that at the time of his death his writings were familiar to not less than a hundred thousand readers. His style was remarkable for its clearness and distinctness, and for the assurance which it naturally conveyed to the mind of the reader of the soundness of his judgment and the purity of his unselfish purpose.

As a man he combined in an unusual degree vigor, activity and strength of intellect with an absolutely incorruptible moral integrity, and a delightfully warm and genial social nature. None who knew him intimately could do otherwise than admire and love him.

In the relation of husband and father his life was singularly beautiful. No wife and children ever had profounder reason to mourn an untimely loss.

Immediately after forwarding the articles herewith published, he suffered an attack of bilious remitting fever, and after ten days of illness, on the 3d of September, with the light of heaven in his countenance, he fell asleep, to awake in the Garden of God.

May the Father of all mercies soothe the sorrows of his bereaved family, and by the gift of His infinite grace help us all to profit by so pure and worthy an example.

Deep Planting.

At a recent meeting of the Alton Horticultural Society, Dr. Hull, an experienced fruit-grower and large orchardist, stated that he "would plant vines and all fruits deep, to avoid the effects of drought and the too sudden effect of moisture after drought upon the fruit. The growth of tree and fruit, when planted shallow, is checked and incited with injurious rapidity." What say our Prof. Comstock "terra culture" friends to this doctrine?

God gives every bird its food, but does not throw it into the nest.

Rogers' Hybrid Grapes.

These are said to be the result of a cross between the Black Hamburg and a large native variety. All that have fruited under our observation are large and showy; in color embracing different shades of amber and purple. Most have thick skins, and a little toughness at the centre. Their flavor is sweet and good, possessing more or less of the peculiar aroma of the native fox grape.

The vines are strong growers, with large, thick, healthy foliage, and seem to be entirely hardy.

Mr. Rogers has not named these seedlings, but distinguishes them by numbers—forty-five, we believe, in all. The following are three of the best:

No. 4.—Color, dark purple; berries, very large; clusters, large, often shouldered; of a sweet, rich flavor; ripens earlier than the Isabella; very productive.

No. 15.—Color, light amber or red; very handsome and showy; berries, large; bunch, medium, shouldered; tender; rich, aromatic flavor; vine, vigorous and productive; ripens earlier than the Diana.

No. 19—Is the largest and earliest, and is esteemed by many as the best of the whole number originated by Mr. Rogers, combining the fine flavor of the Black Hamburg with the hardiness of the native; berries, very large: three fourths of an inch in diameter, by an inch long; of a blue-black color; bunch, large, and very handsome; ripens nearly or quite as early as the Concord. A. G. Hanford.

Columbus, Ohio.

Leave a Grove of Trees near your House.

This is a beautiful and useful feature. It is a grateful shade in summer, and a protection in winter. It adds cultivation and taste to the appearance of the cottage home. We do not mean a single tree here and there, but a grove, wherever it is practicable. Trees left standing, in small clumps, in the field, look much more picturesque than single trees. They also afford shade to cattle, which others do not.

Beurre Giffard Pear.

We do not illustrate this as a new pear, but in order to call the attention of amateurs to it, as one of the very best pears of its season. If picked just at the right time, and house-ripened, it is not surpassed by any of the early pears. We have fruited it now for three seasons, and can testify to its excellence.

Tree, a straggling grower; requires much and careful pruning to bring it into a proper shape. Shoots, of a peculiar reddish color. Fruit buds, long, pointed. Ripens, August 10th.—*Hort.*

We have before alluded to this excellent early pear. It fruited with us, in Wisconsin, several seasons—always very fine. It succeeds admirably on the quince, bears young and abundantly, and well deserves a place even in the smallest col'ection.

A. G. HANFORD.

Making Wine.

An American having written to a friend in Italy for instructions as to making wine, received the following broken English reply: "The way to make wine with grapes is to stomp them well in a tub with a hol and spicket in the bottum, and put that juse in a barel where as ben wine or wiskey or liquors of some kind, otherwaise the wine will stink of wood. Let them boil for forty days meanwhile make the barel full every day for in the boiling diminish. Shot it up after the forty days, and longer you let him stay older it comes, and better it will be." The word "boil" means, in this case, "ferment." The rest is intelligible, and those who follow the recipe faithfully will find it a good one.

Profits of Grape Culture.

At the June meeting of the Cincinnati Horticultural Society, Mr. Mottier stated that he had been engaged in grape culture for thirty years, and he had never entirely failed of a remunerating crop, except one year, in the whole thirty. That is, he had made enough to pay expenses, every year, except the one year, and furnish something fair for interest; while some years he had made very large crops.

Wisconsin State Horticultural Society.

At the recent State Fair, a goodly number of the fruit-growers and nurserymen, in connection with most of the officers of the old organization of the "Wisconsin Fruit-Growers' Association" who remain in the State, held two meetings, for reorganization.

The following brief report will be interesting to many of the friends of the Society who were not present.

The first meeting was held on the 28th of September, at 7½ o'clock, P. M. It was called to order by J. C. Plumb, Chairman of the Executive Committee of the old Association. On motion, F. C. Curtis, of Columbia County, was chosen Chairman of the meeting, Secretary Willey being present.

The first item of business was the adoption of a preamble and resolutions offered by J. C. Plumb, in view of the decease of Mr. A. G. Hanford, Corresponding Secretary of the Association, (which we append.)

On motion of G. J. Kellogg, of Janesville, a Committee on Re-organization were elected, to report at the next meeting. Said Committee were O. S. Willey, J. C. Plumb, and Prof. L. L. Knox, of Appleton.

On motion, a committee of three were chosen to examine and report upon seedling apples on exhibition, consisting of G. J. Kellogg, G. P. Peffer, and J. W. Rist, of Portage County.

On motion, the meeting adjourned until the evening of the 29th.

The second meeting was held in the Court-house, on the 29th of September. F. C. Curtis acted as Chairman, and G. J. Kellogg was chosen Secretary *pro tem.* The Committee on Re-organization made the following report:

That we cannot, without further consultation than the limited time now allows, present a well-prepared Constitution and By-Laws; but we suggest that the organization be now so far effected as to adopt a title, and elect the officers, viz.: a President, one Vice President from each county in the State, a Secretary, and a Treasurer.

The report was accepted, and the Committee discharged.

The meeting proceeded to the election of

officers for permanent organization, by electing for President, Hon. B. F. Hopkins, of Dane county; for Secretary, J. C. Plumb, of Madison; for Treasurer, F. C. Curtis, of Columbia county.

On motion, it was agreed that the Executive Committee should consist of the President, Secretary, Treasurer, and any two Vice Presidents who might be elected to the office; and Messrs. George J. Kellogg and L. P. Chandler were chosen as additional members of said Executive Committee.

The meeting proceeded to the nomination of Vice Presidents, as far as was practicable, and the following gentlemen were named for their several counties: L. P. Chandler, of Dane; G. J. Kellog, Rock; Isaac Atwood, Jefferson; J. S. Stickney, Milwaukee; A. G. Tuttle, Sauk; G. P. Peffer, Waukesha; W. M. Bartholomew, Columbia; N. C. Goldsmith, Grant; M. H. Powers, Green Lake; James O. Zanne, Jr., Kenosha; J. D. Lewis, Buffalo; ——, Woodworth, Marquette; B. F. Felch, Portage; J. B. Richardson, Sheboygan; S. B. Powers, St. Croix; E. Wilcox, Trempealeau; J. L. Tubbs, Walworth, John Wilcox, Winnebago; Henry Floyd, Waushara; John Cox, Washington.

On motion, it was decided to adopt the title of the Wisconsin State Horticultural Society.

On motion, Messrs. Hopkins, Plumb and Chandler were appointed a Committee to prepare a Constitution and By-Laws, and were also empowered to fill up the vacancies in the list of Vice Presidents.

It was resolved that the fee of membership be one dollar per annum, and that the Society hold at least one annual exhibition, at which time the election of officers shall take place.

On motion, it was decided to hold a meeting in Madison, early in January, 1865, for the ratification of the Constitution, and the discussion of horticultural subjects, the time to be fixed by the Executive Committee.

J. C. Plumb, Sec'y.

IN MEMORIAM.

Whereas, In the course of human events it has pleased the Almighty to remove from this life our Corresponding Secretary and an Ex-President:

Resolved, That in the death of Mr. A. G. Hanford we have lost an active and faithful officer and brother of this Society, and the horticultural interests of the North-west a most intelligent and zealous supporter; and while the many evergreens and flowering monuments of his and our art and profession remain, we will cherish the memory of his genial nature, good precepts, and untiring devotion to the cause of horticulture.

Resolved, That we do hereby extend to his afflicted family our deepest sympathies, in this their irreparable loss.

Hedge Plants for the North.

A correspondent desires information about hedge plants for Southern Wisconsin, and asks if the Osage Orange is sufficiently hardy.

The Osage Orange does finely here, and for some distance north of us, but just where its northern limit is we are unable to say. We do not think, however, that it is to be relied upon in Rock County.

We remember an experiment made some years ago, by Mr. Rathbun, of Brookfield, who planted a hedge of the Osage Orange around his orchard. Though it killed back nearly to the ground every winter, it had every appearance of forming a thorough protection after a few years, the dead wood being even more unyielding than the live.

The *Buckthorn* and *Honey Locust* are, all things considered, perhaps the best plants we have for forming protective live fences at the North. The first is rather slow in getting up, and not very thorny while young. It is entirely hardy, transplants easily, and bears clipping to any desired extent. With age it becomes thorny enough.

The Honey Locust is of rapid growth, and is armed with formidable thorns from the first. It does not sucker, is entirely hardy, and is not liable to attacks of the borer or other disease. It bears clipping well; indeed, it must have seasonable attention to this particular, or it may grow out of proper bounds.

A. G. Hanford.

Columbus, Ohio.

DOUBLE ROSE-FLOWERED PORTULECA.

Double Rose-Flowered Portulaca.

[NATURAL SIZE.]

Among the new flowers there are few more attractive than the above. It was first introduced last season, and is a splendid acquisition.

"A perfectly double variety," says James Vick, of Rochester, "as much so as the most perfect rose, and of many brilliant colors, as well as striped." About three-fourths of the plants produced from seeds, last year, were double. We shall endeavor to procure some of the seeds for distribution to our subscribers in the coming spring.

The Concord Grape.

This noble grape is constantly gaining public favor, and taking all things into consideration, is equal to the Delaware, and should have a place beside it in every garden, and for vineyard purposes it is by far the most profitable grape introduced. It ripens three weeks earlier than the Isabella, and is a most vigorous grower. It is perfectly hardy, with bunches handsomely shouldered, often weighing a pound each. It is tender and juicy, and its flavor is very rich and luscious, with a sprightly aroma.

The Concord received two premiums at the Massachusetts State Fair, in 1857: the first premium of $20 00 as a table grape, and the second as a wine grape.

As a wine grape it is unsurpassed, making a fine wine, without the use of sugar, or any other ingredient. It produces sixty drops of juice to the berry, or one gallon of pure juice to ten pounds of grapes. The average yield to the acre, the third year after planting, is 10,000 pounds, or 10 pounds to the vine—1,000 vines to the acre; the fourth year, about 20 pounds to the vine.

This gives, at the price we get for our wine, ($3 00 per gallon,) $3,000 00 the third year, and $6,000 00 the fourth year, from one acre of ground. $3 00 per gallon was given in Philadelphia for the juice, as soon as it was pressed from the grapes, last fall; and there is no reason to suppose it will be any lower. W. PERRY & SON.

BE TEMPERATE in diet. Our first parents ate themselves out of house and home.

A New and Promising Seedling Grape.

MR. EDITOR:—I have sent, by express, a seedling grape—one bunch. It has fruited three years. This is the third year. It has ripened about the 10th of August, till this year. It will probably be well ripened about the first of September. This season it commenced coloring on the 8th of August. I have sent other varieties, to let you see the comparative difference in their ripening. My reason for sending before it is perfectly ripe is, to give you an idea of the size and shape of a bunch; for, if I had delayed, the birds would have destroyed them.

The bunch sent is the perfect shape, and nearly all on the vine are fac similes of it.

I claim the following as qualities of this seedling: it ripens twenty days before the Hartford Prolific, the earliest known grape to ripen; it is equal to the Isabella or Concord in flavor; the bunches are uniform in size and ripening; every fruit on the bunch, and every bunch on the vine, color at once, and ripen at once.

Now, you would like to know as to hardiness. I laid down about one-half of the vine, and covered it about four inches deep with soil; the other half was left on the stakes, exposed to the cold of last winter, with the mercury at thirty five degrees below zero. The bunch sent is from the part left up during the winter.

The vine is six years old, and was raised from seed. It commenced bearing when three years old. It sets fruit remarkably well. It is the product of seed which I saved when on a tasting committee, at our county fair. I don't know its parentage, as I saved seed of all sorts, indiscriminately, and put them in my pocket together.

I claim it as a great acquisition, on account of its extreme earliness and productiveness. This single vine has two hundred bunches of grapes.

As regards excellence of flavor, I doubt whether there will ever be a grape that will equal or excel the Delaware. I think it is the best grape among the whole list of grapes now extant. I have had a pretty fair experience, having fruited over one hundred varieties. I have about two hundred other seedlings, which promise well. They were selected from over eight thousand vines. I continue to raise seedlings every year, and am careful to note the parentage of all since my first effort.

Yours, &c., F. W. LOUDON.

JANESVILLE, WIS., Aug. 22, 1864.

The assortment of grapes above named came duly to hand, and were examined and pronounced upon ere the coming of this letter. The maturity of the seedling, as well as the beauty of its cluster, were remarkable. We are inclined to think it may prove a valuable grape. Ripening in August will of itself insure the Loudon Grape a welcome. The fruit is handsome, and almost the size of the Concord.—EDITOR.

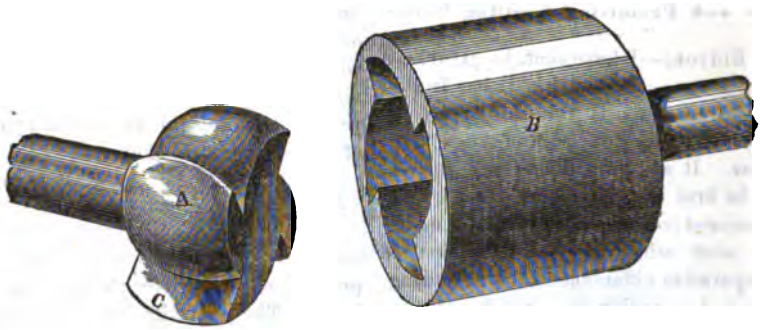
The Jonathan Apple.

For several years I have fruited the Jonathan apple, and there is no apple in my orchard which has pleased me better. It is of medium size, and its color is deep red. The flesh is tender, juicy, and rich, tasting very much like the Spitzenberg. I like it better than the Spitzenberg for eating. I procured my trees from A. G. Hanford, from his Woodside Nursery, to whom, if this were a proper place, I would repay a portion of the large debt of gratitude this part of the State owes him. Knowing nothing about the Jonathan myself, I took it on his recommendation, and rather against my own choice, for the trees were weak and slender in growth, and did not please me. But Mr. Hanford assured me they would grow to be the neatest and prettiest trees in my orchard. They were the first to bear fruit, and when loaded with their deep red fruit, uniform in size, and evenly distributed over the tree, I know of none handsomer. They are valuable for home use, and always sell for the highest price. W. R. S.

WAUKESHA, August, 1864.

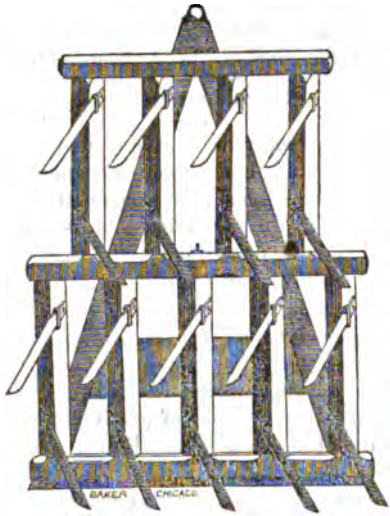
The Biggest Melon Yet.

Length, 17 inches; transverse diameter, 15 inches; weight, 28 pounds! This monstrous and luscious Spaniard came to us from our esteemed friend, H. W. Hayes, of Palmyra, where it was grown.



TAYLOR'S THRESHING MACHINE KNUCKLE.

MECHANICAL AND COMMERCIAL.



Steller's Bog Cutter.

We are pleasd to learn of the success of Mr. Steller, the patentee and manfacturer, in introducing this valuuble maehine. Every journey we make across the State, or into any part of it, convinces us more and more of the great increase it would give to the worth of large quantities of our now una vailable lands.

The above cut will enable the reader who has not seen the implement itself to form an idea of how it is constructed. It will be seen that the knives are so placed and so directed as, when drawn over the bog successively, first one way and then crosswise, to slice the hummocks into small pieces, like mince-meat; and it will also be apparent that if a little time be allowed to elapse between the successive cuttings, the slices will have so dried as to easily crumble on the final crossing.

This implement was on exhibition at the State Fair, and, under direction of the Committee, was tried upon a neighboring bog, and highly approved, as will appear by reference to the list of awards, in Class 35.

Persons desiring fu'ler information as to utility, price, &c, are referred to our more lengthy notice in the May number, and to Mr. Richardson's advertisement, in this.

Taylor's Threshing Machine Knuckle.

Almost every threshing season we hear of one or more terribla accidents, with loss of limbs or life, among our farmers, in consequence of the imperfect manner in which the power is coupled with the machine. The knuckle, which joins the different sections of the tumbling rod, is usually of such construction that the garments of the operator, if accidentally brought in contact with it, are liable to be caught and suddenly twisted up, until the poor victim is thrown down, and either killed outright, or horribly mutilated. To avoid this danger, efforts have been made to secure the passage of laws requiring the proprietors of threshing machines to box up the tumbling rod, thus rendering it impossible for such accidents to happen. But it seems to us that in the above very simple and perfect contrivance, Mr. Ta.lor, the patentee, has furnished us, at much less expense—indeed, with no increase of expense at all, if adopted when the

coupling is first made - all the means necessary to give immunity from danger.

"The part A slips into the shell B, and by reason of its curved surfaces may be moved through any angle, while the wings or flanges, C, cause the shaft to which it is attached to revolve as usual. The shell, B, is straight inside and out, and the plain exterior is a perfect protection against accidental injury. The shell, B, is attached to one tumbling rod, and the part, A, to the other, as represented in the engraving."

In our advertising pages its claims are set forth in detail.

Specimens were shown at the State Fair, and were so satisfactory to the Committee and to the public who examined them, that a Diploma was awarded the inventor.

It will be seen that this knuckle is equally applicable in use to power sugar mills or any other machinerv in which the machine itself is separate from the power, and needs coupling. It strikes us that it must meet with universal favor and a very large demand.

MISCELLANEOUS.

Notables Whom we Saw in Europe.

NUMBER IV.—DICKENS.

Probably there is no living author of whom the English people are more proud, or to whom the great reading public, the world over, are more grateful, than Charles Dickens. He is not only a genius intellectually considered, but a genius of very high order as viewed with reference to the social bearings of his numerous literary productions. Himself a "child of the empyrean," and the incarnation of warmth and sunshine, his writings have had the effect to inspire in the world of his admiring readers an earnest desire for the elevation of mankind through the instrumentality of those most potent agencies, intellectual culture and practical charity. On this account, few writers of the present day, or of any age, have been more useful.

Sketches of London Life, Pickwick Papers, Life and Adventures of Nicholas Nickleby, Master Humphrey's Clock, Barnaby Rudge, American Notes for General Circulation, Christmas Carol, Life and Adventures of Martin Chuzzlewit, Pictures of Italy, Dealings with the Firm of Dombey & Son, History of David Copperfield, Child's History of England, Hard Times, Bleak House, Little Dorrit, Memoirs of Joseph Grimaldi —this is the long list of his distinct publications. All of them are popular, and some of them must remain so while the language endures. Humor is the quality in which he excels—a humor which, as some one has justly said, is original in its essence, and boundless in its supply. In pathos he also excels; so that scarcely any other writer surpasses him in the portrayal of scenes of wretchedness. It is this power of pathos, indeed, that has made him so strong and influential as an advocate of social reforms.

For twelve years he has edited a weekly periodical entitled "Household Words." This necessarily occupies a good share of his attention, and yet he finds time, almost every year, to throw off a separate volume of such merit as to be eagerly caught at by the all-devouring public.

Dickens was born in 1812, and is, therefore, 52 years of age—just in the prime and

vigor of his manhood. While in London, the place of his residence, we twice called at his sanctum, to pay him our respects, and to gratify the strong desire we had long felt to see the man whose ever-working, wonderful brain was doing so much for the pleasure and social profit of so vast a number of his fellow men. Each time we were so unfortunate as to find him absent. But at length we enjoyed the rare opportunity of hearing him read from his own writings, in public. The place was St. James' Hall; subject, the ludicrous adventures of Mr. Pickwick and his associates; the audience, the very elite of London. The author is also a fine actor, and Pickwick was never half so Pickwickian before. The fine face, form and figure of Dickens admirably fit him for stage effect; while his voice has a compass and richness that add much to his dramatic power.

All in all, the performance was one of the most satifactory we ever enjoyed, and we retired at its close, feeling that Charles Dickens was one of the few great celebrities whom it is even better to see than to read of. God grant him long life and ever-increasing usefulness.

The Rapture of a Kiss.

BY ALEXANDER SMITH.

I clasp thy waist, I feel thy bosom's beat;
  Oh, kiss me into faintness, sweet and dim!
Thou leanest to me as a swelling peach,
Full-juiced and mellow, leaneth to the taker's reach;
Thy hair is loosened by the kiss you gave,
  It floods my shoulders o'er;
Another yet! Oh, as a weary wave
  Subsides upon the shore,
My hungry being, with its hopes, its fears—
  My heart, like moon-charmed waters, all unrest,
Yet strong as is despair, as weak as tears,
  Doth faint upon thy breast!
I feel thy clasping arms—my cheek is wet—
One kiss, sweet, sweet, another yet!

They never fall who die
In a great cause. The block may soak their gore,
Their heads may sodden in the sun; their limbs
Be strung to city gates, or castle walls;
But still their spirits walk abroad. Though years
Elapse, and others share as dark a doom,
They but augment the deep and swelling thoughts
Which overspread all others, and conduct
The world, at last, to freedom.—BYRON.

EDITORIAL MISCELLANY.

War News.

We have no room for details, this month, but rejoice that we are able, in general terms, to report glorious progress. Atlanta is ours—Mobile Bay is under our guns. The Shenandoah Valley is swept of rebel forces, and Grant is thundering at the gates of Richmond. The Confederacy is on its last legs, and a few more grand Union victories will knock these from under it.

Buyers and Sellers of Wood, Hay, &c.,

Would do well to note that Mr. Thomas Chynoweth, City Measurer and Weigher, (office near the American Hotel,) has undertaken to buy and sell all articles of the class referred to, for parties who cannot spare the time requisite to making contracts. He is a careful, conscientious man, and can be relied on by both parties to do the fair thing.

Some of the Finest Apples

We have yet seen in Wisconsin were seedlings recently presented us by Mr. J. Hodgson, of Arena. Two varieties of them are eminently worthy of general cultivation. Particular description in a subsequent number.

Election Day

Will afford our friends a good opportunity to work for the FARMER. See that the people vote right, and then that every farmer, at least, takes his own home agricultural journal.

Several Interesting Communications,

Intended for this number, have given place to the "Awards of Premiums," and to an account of the Fair.

An Interesting Visit

To Mr. Hutchinson's Farm and Sorghum Works, near Madison, will be reported in the December number.

Jottings from our Note Book of European Travel

Will be resumed in the next number. For several successive numbers they have been crowded out by practical matter, the publication of which seemed more necessary.

New Advertisements.

Steller's Bog Cutter is advertised by James Richardson. See illustration and notice, in Mechanical Department.

Taylor's Threshing Machine Knuckle is also advertised and illustrated in this number.

Messrs. James L. Tubbs, of Elkhorn, and J. Cunningham, of Illinois, advertise nursery stock.

PUBLISHERS' CORNER.

Wisconsin Farmer.

TERMS.

In advance	$1 00
If payment be delayed six months	1 50
If payment be delay-d twelve months	2 00

☞ The FARMER will not be discontinued, without an order from the subscriber, unless at the option of the Publishers.

Premium Strawberry Plants.

Except about 1,000 plants, the premium strawberries were all distributed, commencing on Friday, the 15th of September. Owing to the extraordinary dry season in the early part of summer, the plants did not root as they would have done under ordinary circumstances, and hence we failed to secure enough plants to fill our orders. Many of the plants sent out were quite poor, but with good care will doubtless live. We have done all within the power of human possibility to fill the contract with our subscribers, and hence shall expect that every reasonable man will bear with us in this partial failure, until we can make it right with him.

Subscribers will wonder why we did not speak of the distribution in the September number, giving them warning of the time when they might expect them. On the 1st of September we received of Mr. Rothe (who had promised us 5,000 plants,) only 600 plants. We concluded that if the drouth had reduced the expectation of a practical gardener from 5,000 to 600, the prospect for the fulfilling our contract was rather slim; but subsequent rains helped the rooting, and made thousands of plants, which we were not certain of until about the 12th of September, and that was too late to make an announcement in the September number.

The plants were all well packed in wet moss, and the evaporation of the moisture was guarded against by means of a thick wrapping of oiled paper, prepared for the occasion, and hence we have reason to expect that they will reach our subscribers in good condition, delays on the road and carelessness of post-masters excepted.

We sent a few varieties, not of the Wisconsin Seedling, as follows:

Triomphe de Gand, a very fine variety, to subscribers at the following post-offices: Yellow Stone, Westfield, Greenville, Medina, Stockton, Caledonia, Center, Racine, Plover, Bloomfield, Douglas Centre, Hortonville, Wakefield, Burlington, Pan Yan, Almond, Buena Vista, Osukanta, and Metomen.

Brighton Pine, a very sweet, excellent berry, to Beaver Dam, Danville, Neosho, Bangor, Cottage Inn, Fairwater, Calumet, Burnette, Horicon, Portland, Onalaska, Rolling Prairie, Oak Grove, Clyman, Hustisford, Wilmot, West Salem, Bramlon, and Eau Claire.

Those of our pa'rons who failed to get strawberry plants this fall will be remembered in the spring. We shall have a very large collection of new and choice garden and flower seeds for distribution in the spring, and will send seeds in place of strawberry plants, if desired. Those who prefer seeds will please notify us.

We have introduced several new varieties of garden and flower seeds, which have proven to be extra fine, such as the White Japanese Musk Melon, and the Star Ipomea, one of the finest and most delicate climbers we have ever seen.

Send in your subscriptions early, and you will be placed first on the seed list.

The November and December numbers will be sent to new subscribers who send in their dollar before the first of December.

WISCONSIN FARMER.

TERMS.

In advance.....$1 00
If payment be delayed six months..... 1 50
" " twelve " 2 00

TO OUR SUBSCRIBERS WHO ARE IN ARREARS.

Every man who subscribes and pays for newspapers and other publications knows from the advance in those publications (from 50 to 100 per cent. upon old rates,) that print paper has raised in price; yet, scarcely any one except the publishers themselves is aware that white paper has almost quadrupled in three years. Notwithstanding all this, and the enormous advance in everything else used in the publication of the FARMER, as well as in the price of living, we have continued it to our subscribers at old rates, and have been more liberal in the distribution of PREMIUMS than any other publication in the United States. In view of all this, we respectfully submit whether it would not be better for each subscriber, (and we know that it would be better for us,) when his time expires, to remit promptly, instead of holding back six, twelve, or eighteen months, and often two and three years—causing us much pecuniary embarrassment, and much time, expense and mortification in collecting. Have the goodness, therefore, gents, to remit your arrearages at your earliest convenience, and save us the expense of sending out a team and calling upon you personally, for which we ought to add 50 per cent. for trouble.

Enclose another dollar for 1865, and receive some of our choice garden and flower seeds. (See announcement on last page of cover.) Address

HOYT & CAMPBELL,
MADISON, WISCONSIN.

WISCONSIN STATE JOURNAL.

DAILY, TRI-WEEKLY, AND WEEKLY.

OFFICIAL STATE PAPER.

TERMS.

DAILY.—Eighty-five cents a month, or $10 a year, invariably in advance.

TRI-WEEKLY.—Price 45 cents per month, 85 cts. for two months; $1 25 for three months; $5 a year, invariably in advance.

WEEKLY.—Published on Tuesday. Price $2 a year; $1 for six months; invariably in advance.

☞ No club rates.

☞ Specimen copies sent on application. Address

ATWOOD & RUBLEE,
MADISON, WISCONSIN.

TOLEDO NURSERIES.

GEORGE BAKER

Respectfully invites the attention of Nurserymen and Dealers to his

LARGE AND UNUSUALLY FINE STOCK,

And well Branched Fruit and Ornamental Trees, Shrubs, Roses, Grape Vines, &c., &c.,

CONSISTING, IN PART, OF

200,000	Standard	Apple	Trees,	three	and	four	years	old—VERY	FINE.	
10,000	Dwarf	"	"	"	"	"	"	"	"	"
10,000	Standard	Pear	"	two	and	three	"	"	"	"
30,000	Dwarf	"	"	"	"	"	"	"	"	"

Grape Vines—Catawba, Clinton, Delaware and Concord; Currents—Cherry, Red and White Dutch; Gooseberries—Houghton Seedling; Evergreens; a large and fine stock of Norway Spruce, 3 to 6 feet; Scotch and Austrian Pine, 3 to 6 feet.

Our assortment is complete, which enables us to fill dealers' orders.

Wholesale Price List sent on receipt of stamp.

aug-3m

GEO. BAKER, Toledo, Ohio.

STATEMENT

OF THE

Madison Mutual Insurance Co.,

FOR THE YEAR ENDING

December 31, A. D. 1863.

Made to the Governor of the State of Wisconsin, as required by the provisions of chapter 108, of the General Laws of 1858.

Total amount of accumulations... ..... $473,170 84

ASSETS.

Unimpaired premium notes of policy holders	$398,256 36	
Cash on hand and due from policy holders and agents for cash premiums.....	67,747 48	
Real Estate.....	6,000 00	
Office furniture and fixt'rs,	1,167 00	473,170 84
Whole No. policies issued		33,163
Am't of outstanding risks thereon.....		$24,020,935 94
Number of policies issued in 1863.....		11 107
Am't of outstanding risks thereon.....		$8,902,000 00
Am't premium notes thereon.....		131,481 33
Am't cash premiums thereon, less commissions to agents.....		70,629 48
Am't interest collected and charged....		1,999 55
Total am't losses reported.....		$34,551 43
Total am't losses paid.....		32,558 06
Losses adjusted and due, awaiting call.		525 00
Losses adjusted and not due.....		none.
Losses unajusted and awaiting further proof.....		2,008 33
All other claims agaims against the co.,		315 31
Am't paid for furniture and fixtures...		167 77
Am't of expired premiums.....		14,404 19
Am't paid for advertising and postage..		1,011 38
Am't paid for printing.....		1,383 16
Am't paid for policy stamps.....		2,305 35
Am't paid taxes to Com'r Internal Rev.		416 68
Am't paid for exchange.....		113 64
Am't paid for cancelled policies		526 36
Expenses paid, including all compensation to Officers and Directors, stationery, clerk hire, rent, fuel, lights, and other incidental expenses.....		5,263 90

STATE OF WISCONSIN, } ss.
Dane County, }

John W. Boyd, President, and Denison Worthington, Secretary, of the Madison Mutual Insurance Company, do solemnly swear that the foregoing statement is true and correct according to the best of our knowledge and belief.

JOHN W. BOYD,
D. WORTHINGTON.

Sworn and subscribed before me, this 23d day of January, A. D. 1864.

D. ATWOOD,
Notary Public.

DIRECTORS AND OFFICERS

OF THE

MADISON MUTUAL INSURANE CO.

FOR THE YEAR 1864.

DIRECTORS.

J. W. BOYD, Walworth Co.
EDWARD O'NEIL, Milwaukee Co.
DAVID ATWOOD, Dane Co.
G. R. MONTAGUE, La Crosse.
ASA KINNEY, Green Lake Co.
H. H. GILES, Dane Co.
LUTHER BASFORD, Grant Co.
B. F. HOPKINS, Dane Co.
ORRIN GUERNSEY, Rock Co.
FRANK H. ROPER, Dodge Co.
J. H. WARREN, Green Co.
TIM. BROWN, Dane Co.
S. D. HASTINGS, Trempeleau Co.
JOHN Q. ADAMS, Columbia Co.
EDWARD PIER, Fond du Lac.
N. C. JANES, Winnebago Co.
JOHN TOAY, Iowa Co.
H. PARKER PAINE, Minnesota.

OFFICERS.

JOHN W. BOYD, President.
B. F. HOPKINS, Vice President.
S. D. HASTINGS, Treasurer.
D. WORTHINGTON, Secretary.
G. B. MONTAGUE, State Agent for Minnesota.

Losses Paid by the Madison Mutual Insurance Company in the Year 1863.

Sam'l M Wells, Summit, Waukesha co....	$500 00
George Y Freeman, Galesville, Trempeleau	15 00
John Barnard, Malone, St Croix co.....	3 50
A C Wiggins, Centre, Rock co.....	201 00
A Richmond, La Crosse.....	185 00
E Bennett, Fitchburg, Dant co.....	821 00
T D & D M Kanouse, Cottage Grove, Dane	252 47
J & D N Collar, Dover, Racine co.....	12 00
J J Reiser, Kendall, La Favette co.....	4 25
J Wearne, Mineral Point, Iowa co.....	46 38
Wm Jewell, Dodgeville, "	78 90
Sam'l Blumer, New Glarus, Green co.....	8 00
D D Utt, Potsai, Grant co.....	2, 073 24
Wm Cooper, Marshall, Dane co.....	675 37
D Sutton, Merrimac, Sauk co.....	10 00
M Montgomery, Union, Rock co.....	10 13
M Montgomery, Union, Rock co.....	47 13
Alex Stearl, Troy, Sauk co.....	581 28
J C Loomis, Millville, Grant co.....	200 00
J B Harelson, Lancaster, Gran co.....	1,050 00
C Ostrander, West Point, Col co.....	649 56
M Weishan, Franklin, Sauk co.....	77 82
C Spann, Sheboygan Falls	14 50
Geo B Waite, La Prairie, Rock co.....	677 18
J Howlett, Black Wolf, Winnebago co....	5 00
Wm Rentar, Pewaukee, Waukesha co.....	31 50
E M Blanchard, Waukesha.....	2 00
Jas Murphy, Hickory Grove, Grant co.....	15 25
R W Couch, Watertown, Jeff co.....	321 72
Jas Davis, Bradford, Rock co	5 00
H Bullard, Union, "	55 00
C Williams, Mineral Point, Iowa co.....	25 00
Lars Moe, Dodgeville. "	171 25
P C Elliott, Freedom, Sauk co	10 00
D S Chase, Gregon, Dane co.....	29 45
Jos Smith, Hampton, Minnesota,.....	325 00
Wm Misslich & Sons, Ithica, Richland co.	285 33
Geo A Harris, Marshan, Minnesota.....	166 56
Sam R Lane, Lowville, Columbia co.....	375 82
Sam King, Fountain Prairie, "	113 06
L Ketchum, Sparta, Monor co.....	200 00
B Johnson, Houston, Minnesota.....	157 47
THenton, Otsego, Col co.....	21 00
J L Compton, Stoughton, Dane co.....	517 00
Wm Reynolds, Hebron, Jeff co.....	150 00
J A Jennings, Franklin, Milwaukee co....	15 00
A Skellinger, Tafton, Grant co.....	7 00
J Arnold, Plymouth, Rock co.....	760 00
E D Campbell, La Crosse.....	25 00
L K Walker, Metomen, Fond du Lac co...	40 00
Wm H Swain, Verona, Dane co.....	25 00
Davis & Ranney, Burke, Dade co.....	134 00
Will Sherman, Eagle, Wauxesha co.....	20 00
Elizabeth W Davis, Brooklyn, Minnesota.	388 42
A S Stiles, St Anthony, "	700 00
T Dutcher, Sullivau, Jeff co.....	200 00
A P Ross, Mt Pleasant, Green co.....	600 00
J H Delamatyr, Middleton, Dane co.....	67 00
Geo Winter, Brooklyn, Green co.....	100 00
A Johnson, Union, Rock co.....	5 00
Sarah Vernon, Trempeleau, Trempeleau co	58 90
Harriet L Shaw, St Anthony, Minnesota..	110 00
D Murray, Brighton, Kenosha co.....	163 00
S R. Edwards, Sugar Creek, Walworth co.,	75 00
J Downey, Ottawa, Waukesha co.....	10 63
A G Dunning, Arlington, Col. co.....	4 00
H Hallickson, Pleasant Spring, Dane co...	25 00
J Brosemer, Roxbury, " .	270 00
J Eble, Sheboygan, gheboygan co.....	430 00
N Mertes, Forest, Fond du Lac co.....	35 00
L Davits, Hubbard, Dodge co	266 00
J B & M Witeven, Troy, Sauk co.....	40 00
L F Parker, Dekota, Minn.....	14 75
T Cousins, Trempeleau, Trempeleau co...	36 85
J H Knowlton, Janesville, Rock co.....	550 00
O Rollman, Calumet, Fond du Lac co.....	12 50
Wm Killips, New Berlin, Waudesha co....	700 00

L Griswold, Newburg, Minn	15 00
Wm Rogers, Hebron, Jeff co	200 00
L Huber, Eagle Point, Chippewa co	200 00
Jno Hoover, Cannon City, Minn	500 00
A Coburn, Prairie du Chien	125 00
Cornelia S Merrill, Westport, Dane co	1,350 00
Wm H Read, La Prairie, Rock co	150 00
Frances Patterson, Afton, Minn	1,650 00
T A Stephens, Whitewater, Walworth co	50 00
O Cox, Fulton, Rock co	40 00
Thos Mott, Roscoe, Minn	13 00
W Wright, Janesville, Rock co	118 00
P Schwartz, Troy, Walworth co	10 50
Sophia A Ragan, Ithaca, Richland co	430 75
Jno Carlson, Amherst, Minn	33 45
Jos Sykes, Little Grant, Grant co	15 10
Jos Hartman, Dekorra, Columbia co	692 68
R Gallaghr, Blooming Grove, Dane co	910 00
Jno Evans, Hebron, Seff co	72 00
Dan'l Maxson, Albion, Dane co	180 00
S Burlingame, Ripon, Fond du Lac co	116 00
Jos Grundy, Harmony, Rock co	576 00
R Williamson, Hebron, Jeff co	20 00
W W Hebing, Middleton, Dane co	214 70
L H Chase, Waupun, Fond du Lac co	725 00
A Pattridge, Pleasant Grove, Minn	10 00
E A Glover, Troy, St Croix co	339 00
Thos Robbins, Sefferson, Jefferson co	125 00
M J McCourt, Oshkosh, Winnebago co	700 00
P Trimborn, Greenfield, Milwaukee co	25 00
Clapp & Davis, Springfield, St Croix co	112 00
H Sprenger, Hubbard, Dodge co	441 00
E Newton, Sullivan, Jeff co	4 38
E R Maxson, Walworth, Walworth co	75 00
G D Pearce, " "	123 75
H H Hunger, Oak Creek, Milwaukee co	156 40
W Watson, Cortland, Columbia co	25 00
S W Smith, Lamartine, Fond du Lac co	310 80
Wm B Taber, Dover, Racine co	1,150 95
H Hewitt, Ripon, Fond du Lac co	92 90
F F Jung, Wayne, Washington co	171 06
C Dunning, Farmington, Seff co	300 00
Wm L Wilson, Harrison, Grant co	100 00
P Smith, Ironton, Sauk co	525 00
S & J Simon, Springfield, Dane co	23 00
Nancy J Ricker, Shurburne, Minn	769 90
A Jameson, Kingston, Sauk co	66 00
A Willis, jr., Prairie du Sac, Sauk co	155 00
D O Callagan, Jackson, Washington co	12 00
A Bunter, Oshkosh, Winnebago co	400 00
F & H W Albert, Greenfield, Sauk co	26 00
A A. Ross, Lake, Milwaukee co	568 00
C Knapp, Waterloo, Grant co	400 00
J Henry, Lodi, Columbia co	5 00

This is in every sense a

FARMERS' COMPANY,

Insuring nothing but farm and homestead property—giving *more protection to the farmer* that any other company, because insuring his grain in stacks, and his live stock in fields on farm, against damage by lightning as well as burning; and at a cheaper rate because it is careful in choosing its members and the kind of property it insures.

Twenty-five thousand farmers of this State are members of this company, and their families embrace over 100,000 persons whose interests are protected by its mantle!

Office in the Company's New Building

adjoining Porter's Block, Madison.

D. WORTHINGTON, Sec'y.

MINERAL POINT RAILROAD

FROM Mineral Point to Warren, Ill., connecting with Illinois Central, Galena & Chicago Union, for all points east, west and south.

G. W. COBB,
Superintendent.

STELLAR'S BOG CUTTER,

FOR LEVELLING ROUGH MARSH LAND.

THIS machine having been thoroughly tested, proves a complete success, and will level smoothly, with one yoke of cattle or horses, from one to three acres per day, of the roughest bogs Many lands heretofore considered worthless, by this machine can be made available for nice, smooth meadows, so that reapers and mowers can be worked upon them as successfully as upon smooth prairie.

At the late State Fair, at Janesville, although no premiums were offered for such machines, the Committee on implements looked upon it with great favor, as an immense benefit to the agricultural interests of the West, and very cordially presented Mr. Stellar, the inventor, with a diploma.

A supply of these machines will be ready and for sale by November 1, 1864.

For information, price. &c., enquire of

JAMES RICHARDSON,
nov-1m Madison, Wis.

TO TREE PLANTERS.

THE subscriber continues to furnish those who may favor him with their orders, a general assortment of

FRUIT AND ORNAMENTAL TREES, PLANTS, &c.

☞ Prices will be given on application.
☞ Communications promptly answered.

Address JAMES L. TUBBS,
nov-tf Elkhorn, Wis.

400,000 Apple Seedlings

VERY FINE.

For sale by J. CUNNINGHAM,
nov-2m Prairie City McDonough Co., Ill.

ROCK TERRACE NURSERY,

NEAR MADISON, WIS.

THE undersigned would call the attention of those wishing to purchase Fruit, Ornamental Trees, Evergreens, Herbaceous Plants, Shrubs, Japan Lilies, Small Fruits of any description, Vines, &c., &c., to his large stock, of Wisconsin growth, of superior quality. I intend to clear a large portion of my Nursery ground, this fall and the coming spring, and those wishing to purchase largely can get great bargains at the Nursery. Any one wishing to purchase my entire stock can do so at a very great bargain, and have plenty of time to remove the stock. The stock, for health and vigor, cannot be surpassed in the State. *The trees are all free from insects.* I will sell extra sized Evergreens at less than half the usual prices. Information can be obtained at the Nursery, or by letter. Post-office address,

L. P. CHANDLER,
Rock Terrace Nursery,
Madison, Wis.
[Formerly Robbins & Chandler.] sep-7m

FAIRBANKS'

STANDARD

SCALES!

OF ALL KINDS.

FAIRBANKS & GREENLEAF,

35 LAKE STREET, CHICAGO.

☞ Be careful to buy only the genuine. ☜

J. N. JONES, Agent, Madison, Wis.

THE

CONTINENTAL INTURANCE COMPANY!

CASH CAPITAL

$1,345,386 92!

OFFICE, 202 BROADWAY, NEW YORK.

GEO. T. HOPE, President. **H. H. LAMPORT, Secretary.**

CYRUS PECK, Assistant Secretary.

OFFICE OF THE WESTERN AGENCY,

MADISON, - - - - WISCONSIN.

G. F. HASTINGS, GEN'L AGENT.

A. C. DAVIS, State Agent for Wisconsin.

CHARACTERISTIC FEATURES OF THE CONTINENTAL INSURANCE COMPANY.

THE system on which this Company is based is popularly known as "The Participation System." The following are some of the reasons for preferring the Continental to any other Insurance Company:

1. It enables customers to obtain their insurance as near cost as is consistent with reliable security, with the additional advantage of having that security increased with each successful year's business.
2. This Company insures all kinds of good property, *at the lowest current rates.*
3. Special attention is paid to insurance of Homesteads and Farm Property, including Grain in stacks, and Live Stock on farm.
4. This Company pays for damage done by *Lightning* to property insured by it, to the full amount of the damage, *whether fire results from the lightning or not.*
5. Any person insured in this Company may, at his request, have his policy cancelled at any time, and have his money refunded for the unexpired term, in which case the Company will retain the customary rates for the time the policy has been in force.
6. The effect of the "Participation System" is to leave in each State the principal part of the amount received by the Company for premiums; for instance, all the money paid for losses, the principal part of the expense of conducting the business, the State and Revenue tax, and three-fourths of the net profits divided to its customers, are all retained within the State, thus giving all the advantages derived from local and State Mutual Companies.
7. This Company has also reserved the important right to issue policies which do not entitle the holder to participate in the profits. Such policies do, however, entitle the holder to all the security which the system provides, and will be issued at prices as low as experience proves to be equal to the hazard, and therefore as low as any respectable and permanent company can insure.

A ledger account is opened with each person or firm participating in the profits of the Company's busines. On the next page will be found a practical example illustrating the "Participating" system:

LEDGER ACCOUNT WITH J. ABBOTT.

The accounts of the Company are made up to July 1st in each year, and the dividends to customers are declared annually in July, on the EARNED (or expired) portion of the premiums.

DATE.	TIME.	PREMIUMS RECEIVED.	EARNED.	UNEARNED.	DIVIDENDS DECLARED TO CUSTOMERS.	SHARE OF PROFITS.
1856.						
July, 20,	1 year.	$40 00	$36 67	$3 33	33⅓ ₩ ct. scrip.	
1857.						
May 1,	1 year.	10 00	1 66	8 34		
		50 00	38 33	11 67		$10 00
1857.						
July 1,	Bal.	11 67	11 67			
Juld 20,	1 year.	40 00	36 67	3 33	40 ₩ cent. scrip, and 6 ₩ cent. interest in cash on prior dividends.	
1858.						
May 1,	1 year.	10 00	1 66	8 34		
		61 67	50 00	11 67		25 00
1858.						
July 1,	Bal.	11 67	11 67			
July 20,	1 year.	40 00	36 67	3 33	50 ₩ cent. scrip- and 6 ₩ cent. interest in cash on prior dividends.	
1859.						
May 1,	1 year.	10 00	1 66	8 34		
		61 67	50 00	11 67		25 $00
1859.						
July 1,	Bal.	11 67	11 67			
July 20,	1 year.	40 00	36 67	3 33	45 ₩ cent. scrip, and ₩ cent. interest in cash on prior dividends.	
1860.						
May 1,	1 year.	10 00	1 56	8 34		20 00
		61 67	50 00	11 67		
1860.						
July 1,	Bal.	11 67	11 67			
July 20,	1 year.	40 00	36 67	3 33	35 ₩ cent. scrip, and 6 ₩ cent. interest in cash on prior dividends.	
1861.						
May 1,	1 year.	10 00	1 66	8 34		
		61 67	50 00	11 67		15 00
1861.						
July 1,	Bal.	11 67	11 67	3 33		
July 20,	1 year.	40 00	36 67		40 ₩ cent. scrip, and 6 ₩ cent. interest in cash on prior dividends.	
1862.						
May 1,	1 year.	10 00	1 67	8 34		
		61 67	50 00	11 67		20 00
1862.						
July 1,	Bal.	11 67	11 67			
July 20,	1 year.	40 00	36 67	3 33	50 ₩ cent. scrip, and 6 ₩ cent. interest in cash on prior dividends.	
1863.						
May 1,	1 year.	10 00	1 66	8 34		
		61 67	50 00	11 67		25 00

July 20, 1856, to July 1, 1863, the above would have cost the insured upon non-Participating Policies		$350 00
He has received from the Company Scrip	$140 00	
He has received Interest on Scrip in cash	23 70	163 70
The insurance has cost him with Participating Policies		$186 30

PROGRESS AND RESOURCES OF THE CONTINENTAL.

The progress of the Continental Company since 1857, when the system of Participation was adopted, is shown by the following figures:

Jan. 1, 1857,	Net Assets	$610,267 73
Jan. 1, 1858,	"	692,300 64
Jan. 1, 1859,	"	818,481 88
Jan. 1, 1860,	"	915,646 49
Jan. 1, 1861,	"	995,284 39
Jan. 1, 1862,	"	1,052,116 98
Jan. 1, 1863,	"	1,143,634 48
Jan. 1, 1864,	Cash Assets	1,345,386 62

The annexed statement of the investments of the Company, exhibiting the security furnished to those who insure, is confidently submitted for the inspection of all interested. The statement is copied from the Company's Twenty-Second Semi Annual Statement, reported to the Secretary of State of the State of Wisconsin, bearing date of January 1, 1864:

ASSETS.

CASH ITEMS.		
Cash balance in Bank	$55,308 1	
" " in Office	87 76	
Loans on Stocks of Solvent Institutions, worth over $168,583 (payable on demand)	123,003 00	$188,396 86
Real Estate owned by the Company		92,000 00
Loans on Bonds and Mortgages, first lien on Real Estate, worth over $1,095 150.		507,600 00
Stocks and bonds owned by the Company (estimated at considerably below their present value, by way of allowance for future fluctuations)		533,225 00
Interest on Loans due and unpaid (all paid before February 1, 1864		16,407 66
Premiums due		5,905 40
Rents accrued, not yet due		1,350 00
United States Internal Revenue stamps.		500 00
Total Assets		$1,345,386 92

LIABILITIES.

Losses unpaid, and all other liabilities, of every description $48,592 85

Of the present assets, $500,000 represents the cash capital of the Company, $481,160 the outstanding Scrip, which has been divided to its customers, and which is to be redeemed as fast as the Scrip dividends exceed half a million of dollars, and the balance consists mainly of the unearned premium, and the profits of the past six months to be divided between the Company and its customers in July next.

DIVIDENDS.

Three-fourths of the net profits are annually divided to customers (who incur no liability thereby), in scrip, bearing 6 per cent interest, paid annually, till redeemed.

Divisions have been made in July of each year, as follows:

In 1857	33⅓ per ct.	In 1858	50 per ct.
In 1859	50 "	In 1860	45 "
In 1861	35 "	In 1862	40 "
In 1862	50 "		

Average dividend on premiums for the past seven years, 43 cents on the dollar.

DIRECTORS AND OFFICERS.

GEORGE T. HOPE, President.

A. A. Low, of the firm of A. A. Low & Bros.
John D. Mairs, of the firm of David Dows & Co.
S. B. Chittenden, of the firm of S. B Chittenden & Co.
Loring Andrews, of the firm of Andrews, Gibbons & Co.
Thos. Tileston, President of the Phenix Bank, of the firm of Spofford, Tileston & Co.
Wm. T. Coleman, of the firm of Wm. T. Coleman Co.
Wm. H. Swan, firm of Grinnell, Minturn & Co.
Wm. Scott, firm of Wm. Scott & Son.
James A. Edgar, firm of Booth & Edgar.
Thomas Smull, firm of Thomas Smull & Sons.
Charles M. Connolly, firm of Chas. M. Connolly & Co.
Wm. V. Brady.
Geo. W. Lane, firm of Geo. W. Lane & Co.
J. H. Ransom, late of J. H. Ransom & Co.
Samuel D. Babcock, firm of Babcock Brothers & Co.
Henry C. Bowen, late of Bowen, Holmes & Co.
Aurelius B. Hull, firm of Fahnestock, Hull & Co.
A. Studwell, firm of A. Studwell & Co.
Wm. M. Vail.
Hiram Barney, firm of Barney, Butler & Parsons.
Lawrence Turnure, firm of Moses Taylor & Co.
Shepperd Gandy, firm of Robert & Williams.
Geo. Griswold, of the firm of N. L. & G. Griswold.
Samuel A. Sawyer, firm of Sawyer, Wallace & Co.
Horace B. Claflin, late of Chaflin, Mellen & Co.
Cyrus Curtiss, Pres. Washington Life Insurance Co.
Edmund M. Young, firm of Young, Shultz & Co.
D. H. Arnold, President of the Mercantile Bank.
Charles Lamson, firm of C. H. Marshall & Co.
L. H. Brigham, late of Brigham & Parsons.
Wellington Clapp, late of Clapp & Kent.
Bradish Johnson, firm of Johnson & Lazarus.
John Caswell, firm of John Caswell & Co.
Daniel W. Teller, firm of Galwey, Cassado & Teller.
John Paine.
Robert H. Hawthorn, late of Adams & Hawthorn.
Joseph Bartell, firm of Egleston, Bartell & Co.
Rob't H. McCurdy, of McCurdy, Aldrich & Spencer.
Geo. S. Stephenson, firm of Geo. S. Stephenson & Co.
Geo. Mosle, firm of E. Pavenstedt & Co.
Wm. M. Richards, late of W. M. Richards & Co.
John H. Earle, Pres. N. Y. Mutual (Marine) Ins. Co.
Henry Eyre.
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NO.		SIZE OF ROLLS. Length.	Diameter.
1	Large Family Wringer,	$14.00	11¼ in. 2¼ in.
1½	Medium " "	12.00	11¼ in. 1¾ in.
2	" " "	10.00	9¾ in. 1¾ in.
2½	Small " "	9.00	10¼ in. 1⅝ in.
3	Small " "	8.00	8¾ in. 1⅝ in.
8	Large Hotel "	20.00	14 in. 2¼ in.
18	Medium Laundry "	30.00	17½ in. 2¼ in.
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Nos. 18 and 22 to run by steam or hand. Pullies, $5 per pair.

Nos. 2½ and 3 have SMALL ROLLS and NO COGS. All others are

WARRANTED.

Nos. 1 and 1½ are packed SIX in a box, and No. 2 TWELVE in a box. Other sizes as wanted.

On receipt of the price, from places where no one is selling, we will send the U. C. W., *free of expense.*

In reply to the qudstion, "How Long will it Last?" we can only say, "As long as a wash-tub, cooking-stove, or any other family utensil." See testimony of ORANGE JUDD, editor of American Agriculturist.

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SUGAR CANE MILLS!

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THIS mill has been before the public for the last four years, and has invariably given the best of satisfaction. The lever principle is a new and distinctive feature in this mill, and secures a constant, unvarying pressure, and expresses the juice much dryer and with less power than any other mill. Our adjustable principle is no make-shift, but is real, and is all that is claimed for it. We have a pamphlet containing a full description of our various sized mills, with testimonials therefor; also, a treatise on growing and working up Sorghum.

This mill took the FIRST PREMIUM at the Illinois State Fair, last fall, after a thorough and rigid trial. It receives commendation from the press and the public, everywhere. The reporter for the Chicago *Tribune*, from the Sorghum Convention held in this city on the 3d, 4th and 5th of the present month, in speaking of the mills on exhibition, remarks:

"The Climax Mill of Skinner's patent seemed to have the most friends, and warm approbation for it was expressed by all present who had used it the past season. Your readers will remember that this mill took the first premium at the Illinois State Fair, at Decatur, last season, and it is the only one we are acquainted with that adjusts its pressure by lever and weights, instead of by set screws."

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Madison, February, 1864.

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OF THE

Dodge Co. Mutual Ins. Co.

January 1st, 1864.

Amount of Capital Jan. 2d, 1864.....$94,377 96

CONSISTING OF

Premium Notes.....	$80,014 12	
Real Estate and Office Furniture,	830 49	
Cash on deposit add in Co's Office,	2,096 53	
U. S. 5.20 Bonds.....	2,500 00	
Cash loaned on Call.....	2,159 00	
Bills Rec. having from 1 to 6 mos. to run	6,781 82	
		$94,373 96
Whole No. Policies issued since Jan. 1, 1863,		1,210 00
Whole No. Policies outstanding Jan. 1, 1864,		6,010 00
Whole amount at risk thereon.....		4,733,588 00
Cash Premium.....		9,390 16
Cash rec'd for interest, and other sources,		875 37
Paid unearned Premium.....		64 41
Paid expenses of Officers, Agents, Printing, Postage, Rents, Fuel, Stamps, Taxes, &c.		5,247 36

Paid the following Losses since Jan. 1, 1863:

Peter Phelan, Farmington, Jefferson co...	270 38
L. C. McCleary, Sextonville, Richland co.,	8 00
J. S. Hobart, Royalton, Waupaca co.....	15 25
E. R. Disbrow, Taycheday, Fond du Lac co.	250 00
G. W. Anderson, Princeton, Green Lake co.	650 00
G. Madsen, Cato, Manitowoc co.....	15 25
D. Mauser, Kilington, Outagamie co.....	15 65
Platt Fish, Dellona, Sauk co.....	667 00
J. A. Nortnrup, Clyman, Dodge co.....	615 20
E. A. Mansfield, Greenbush, Sheboygan co.	4 13
Carl Rash " "	13 00
N. Blodgett, Stocton, Portage co.....	150 00
F. Steink, St. Martin, Green Lake co.....	368 00
Alvah Knapp, Metomen, Fond du Lac co..	43 86
Cecelia Drifarst, Mashfield "	222 50
Philip Goetz, Newton, Manitowoc co.....	67 25
J. Winberger, Leroy, Dodge co.....	63 75
F. Rathermel, Plainfield, Waushara co....	12 00
J. N. Hall, Forest, Fond du Lac co.....	240 00
Rudolph Jager, Franklin, Sauk co.....	92 50
C. L. Gould, Sheboygan Falls.....	209 00
G. W. Nelson, Princeton, Green Lake co..	300 00

There are no unsettled claims agains against the Company of any kind. All claims have been adjusted promptly and paid. We still adhere to our rule of insuring nothing but *Farm Property and isolated Dwellings*. Our capital is steadily increasing and the Company stands second to none, and the risks they assume of the safest kind.

We ask your continued patronage and that of your friends.

EDWIN HIDLYER, Sec. GEO. W. BLY, Pres.

JOS. T. HILLYER, Treasurer.

Logan Graves, Wm. G. McElroy, Geo. Babcock, M. L. Coe, L. B. Hills, and Hanson Ely, *Directors*.

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BEST QUALITY OF PLANTS

AT LOW PRICES!

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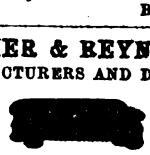

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Madison, Wisconsin, Sept. 29, 1863.

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CHURN AND BUTTER WORKER,

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WE have obtained the right of manfacture and sale of the above Churn, for this State, and we present it to the public confident of its possessing features entirely new, and of such practical utility as necessarily give it a superiority over any churn hitherto invented.

We are now prepared to show, by practical exhibition—

First, That it will churn cream or sweet milk in from two to six minutes.

Second, That it will gather the butter and work it over in about the same length of time, by simply reversing the motion.

Third, That it will make as good butter in the above named time as if the process of churning was continued for one hour, or even more.

Fourth, We combine all these qualities in a churn at once cheap, simple and durable, and free from metallic substances inside the churn.

In speaking thus confidently of the advantages of this churn, we invite all those who either use or are in any way interested in such an article to witness our practical exhibitions, either with cream or milk, and see if these things be so.

We are now prepared to furnish, at short notice, the above mentioned churn, at wholesale or retail, and invite all those wishing an article of the kind to give us a call, at the office of M. E. Fuller & Co., on King street. A. SHERWIN & CO.

Madison, Wis., May 2, 1864.

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Fruit Trees for the Fall of 1864.

TREE planters who desire perfect success, will find it for their interest to purchase in the fall, bury for the winter, and plant early in the spring.

My trees are unusually well grown, low branched, vigorous and healthy, and of the best

Hardy Varieties adapted to the North-west,

With many new and valuable varieties. Also, a large stock of Currants, Gooseberries and Grapes, and many varieties of Ornamental Shrubs and Plants, which should be planted in the fall, if possible.

I have no second class trees to sell, and do not peddle trees, nor, as a rule, do any of my agents.

Dealers supplied on liberal terms.

Farmers can club together, order through some one of them, and save agents' per centage.

Packing done in the best manner, and transportation convenient to all the shipping lines in the Northwest.

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DWARF AND STANDARD APPLES,
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PLUMS,
CHERRY,
PEACH,
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ALSO,

GOOSEBERRIES,
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Hardy native GRAPES, best sorts.

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THE WISCONSIN FARMER.

J. W. HOYT, : : : : : EDITOR.

VOL. XVI. MADISON, DECEMBER 1, 1864. No. 12.

The "State Agricultural College"—Shall it be Established?

Presuming that our readers are all of them sufficiently intelligent to see that a practical and scientific institution for the education of the youth of our State in their various pursuits and professions in life, if ably and faithfully managed, would result in great good to all its material and social interests, we shall not stop to argue the advantages of such an institution on general principles.

As a State we have accepted the liberal offer of the National Government, and given our pledge that such an institution shall be actually established and in *bona fide* operation within the next two years and a half. Shall we redeem our pledge, and so follow the worthy example of many of our sister states, whose legislatures have spiritedly and in the liberal use of means, begun the work of building up institutions of this class? Or shall we hesitate and higgle and quarrel over trifling matters of detail, until the time within which our pledges should be redeemed shall have passed, and the quarter of a million of dollars' worth of lands so wisely donated by Congress shall have been forfeited and lost? These are the questions to be answered by the people of Wisconsin, and acted upon by their representatives, this winter.

We were decidedly of the opinion, last winter, that no more favorable time would come for the inauguration of the enterprise than we had then, and accordingly regretted that the bill for the incorporation of the institution, which passed by so large a majority in the Senate, did not also pass the Assembly and become a law. At that time lands and materials for building were cheaper than now, and the great body of the farmers of this State, to whom we shall be compelled to look for aid in the establishment of the College, were in better condition than now. There is this one difference, however, in favor of the present time: Glorious victories won by the armies of the Union have inspired the whole American people with new hope in the final and early triumph of the cause of the Republic. To-day, men feel everywhere that the Union *is* to be restored, and that peace and prosperity will again come to our distracted land. And hence it is reasonable to infer that the people of Wisconsin who appreciate the necessity of going forward energetically with all enterprises that look to the advancement of the State in material and social prosperity, will more liberally and cheerfully give of their substance and personal effort.

The bill introduced last winter was prepared with great care, after years of earnest

enquiry, observation and study, by men who had no selfish interests to subserve, and after consultation with the ablest educationists of the State and country, and we are ourself of the opinion that it ought to pass the Legislature this winter promptly and with no material amendments. For the benefit of such of our readers as are not familiar with its features, we herewith present those sections which embody its most important provisions:

OBJECTS OF THE INSTITUTION.

SECTION 2.—The leading objects of said Institution shall be the collection, determination and diffusion of knowledge calculated to promote the practical education of the people, and to advance the industrial interests of this State.

HOW TO BE CONTROLLED.

Sections 3 and 4 name the Trustees—the Governor of the State, the President of the Institution, and the President of the State Agricultural Society, who shall be members ex-officio, and six additional members, to wit: one from each congressional district, and confer upon them the powers of a corporate body.

SECTION 5. * * * And the method of determining the succession to the places thus made vacant [by the expiration of the terms of office of the trustees appointed in the bill] shall be as follows, to wit: In every year of odd number, and at such time and place as its executive committee may determine and make due notification of, each County Agricultural Society, or other industrial association embracing a territory of not less than one county, and located within the congressional district from which appointments are to be made, as hereinafter required, may nominate to the Governor of the State one person for trustee of the State Agricultural College; giving notice in writing to the Governor, signed by the President and Secretary of such society or association, of the said nomination, on or before the first Wednesday of November, of the same year; and from the nominations so made, it shall be the duty of the Governor, on or before the first Wednesday of December next succeeding, to appoint two trustees to supply the places of those members whose term of office shall expire on that day; *Provided*, That a majority of the counties of the said congressional districts shall be represented by said nominations; in failure of which the Governor shall, by and with the consent of the Senate, make the said appointments, from the said districts at large: *Provided*, That at no time shall there be in the said Board more than one appointed member from the same congressional district. And the trustees appointed by the Governor, as herein provided, shall hold office for six years, and until their successors are appointed; *Provided*, That if any member shall neglect to attend three successive regular meetings of the Board, his place shall become vacant, and said vacancy, or any vacancy that may occur, from any cause whatever, in the said Board of Trustees, shall be filled by them, until such time as when it shall again be competent for the Governor to appoint, as hereinafter provided, when it shall become his duty to fill such and all other vacancies as may at that time exist.

SECTION 6.—No member of the Board of Trustees shall receive compensation for his services as such member, but each member shall receive reimbursement, on the audit of the Board, for his travelling and other necessary expenses, while employed on the business of the Board.

LOCATION OF THE INSTITUTION.

SECTION 9.—Immediately upon the organization of the Board of Trustees, it shall be their duty to advertise for offers of a building site and farm for the College; and as early as possible, and at the farthest before the first Wednesday of August, A. D. 1864, to select and secure the most eligible site, all things considered, within the State; being governed in such selection by the following general conditions, to wit: that the location be accessible by railroad, that it be healthful, that the farm embrace not less than three hundred nor more than seven hundred acres, that said farm be susceptible of ready improvement, and that it present as great a variety as possible of soils and exposures.

Sections 10, 11, 12, 13 and 14 provide for the appointment of a President and the erection of buildings, give to the Trustees the control of all funds, lands, and other property of the institution, and provide for the organization of the Faculty of the College.

NATURE OF THE INSTRUCTION TO BE GIVEN.

SECTION 15.—The Board of Trustees, with the advice of the Faculty, shall arrange the courses of instruction for the College and farm; but no scheme of education shall be adopted that does not conform to the provisions of the act of Congress herein referred to, and in which the natural sciences and their practical application to agriculture and the other industrial

arts—including mining, metallurgy, and mechanical and civil engineering—are not made paramount. * *

QUALIFICATIONS OF STUDENTS.

SECTION 16.—Students shall be admitted to the College under such regulations as to age and other qualifications as the Board of Trustees may see fit to adopt; but no student shall receive the honors of the Institution who shall not have acquired a practical familiarity with at least one of the industrial arts, and with the military tactics taught in the College.

LABOR REQUIRED OF THE PUPILS.

SECTION 17.—With a view to the efficiency above required, and with the further object of promoting the health of pupils, each student shall be required to perform a certain amount of labor each day, (Sundays excepted,) in some branch of productive industry, and to take such exercise in the military drill as the Board may require; *Provided*, That, except in extraordinary cases, to be determined by the Faculty, not less than one, nor more than three hours per day shall be required to be thus employed.

TUITION ULTIMATELY TO BE FREE.

SECTION 18.—For the time being, an admission fee and rates of tuition, such as the Board shall deem necessary, may be required of each pupil; but as soon as the income of the College will admit, admission and tuition shall be free to all residents of this State. And whenever the number of applicants for admission shall equal or exceed the accommodations provided, it shall be the duty of the Trustees, according to population, to so apportion the representation of students, as that all portions of the State may enjoy equal privileges therein.

SECTION 21.—In addition to the duties which pertain to the educational departments, as hereinbefore defined and required, the said corporation of the State Agricultural College shall also, on the opening of the Institution, assume the duties and prerogatives which are properly exercised by bureaux of statistics and agricultural departments of state; such as the collection of statistics and reports of industrial associations, the proof, propagation and distribution of new varieties of cereal grains, fruits, live stock, &c., the introduction of improved implements, machinery and methods, and the conduct of experiments for the determination of scientific principles applicable to the industrial arts. And from and after the date of the said opening of said institution—of which due notification shall publicly be made by the Governor—all statistics and reports relating to the industry of the State, and at that date required to be returned to any corporation, institution, or department of State, shall be, under like pains and penalties, exclusively returned to the said State Agricultural College.

Section 22 requires the officers of the College to arrange and prepare for publication the statistics and other information thus collected and proved, and to report them to the Governor, to be by him laid before the Legislature.

The remaining sections provide for the sale of the lands, which are to be put into market immediately, at a minimum price of not less than $1 25 per acre, and for an appropriation of $10,000 per annum, for three successive years, to aid in the erection of buildings, and the improvement of the farm, and to furnish the College with needful furniture, apparatus, &c.; said appropriations being conditional upon the payment of an equal amount by citizens of the State.

Such are the general features of the State Agricultural College, as shadowed forth in the bill which, last winter, came so near becoming a law. Quite a majority in both houses were in favor of it, and but for the sharp practice of a few unscrupulous demagogues, and the blindness of a number of farmers who failed to appreciate the value of such an institution, and who therefore combined with the tricksters, in the absence of some of the ablest friends of the measure, to get the bill so circumstanced as to require a two-thirds vote to pass it, it would now have been in actual force.

It will be seen by the quotations from the bill above made, that the scheme is more comprehensive than is common to educational institutions generally. Indeed, it is more comprehensive and complete than that of any similar institution of which we have a knowledge in the world.

Every thinking man ought to be able to see that the industry of a state or nation is an interest of sufficient importance to entitle it to the supervision of an intelligent authoritative head. And this is just what is proposed by this bill. It provides for the

establishment of an institution that shall, in the most intelligent manner possible, and with the utmost faithfulness, represent the great interests of industry, in all its departments—educating and ennobling its votaries, and thus elevating and dignifying the practical arts; establishing the principles of science, by the sure test of experiments in the laboratory, workshop, and field; gathering up statistical and other information from all parts of the State and the civilized world, sifting, proving and illustrating it under the eye of the public; and finally diffusing a knowledge of the truths thus established through the medium of graduated pupils and published reports, to all portions of the State, and to all enlightened countries.

Who does not see that an institution like this would not only be an honor to the state of Wisconsin, but likewise be of incalculable advantage to her practical industry? It is our own most positive conviction that, when once fairly established and in full operation, it would have the practical effect to annually advance the prosperity of the State, by an amount pecuniarily equal to the whole cost of the institution. This opinion is not based upon mere conjecture, but upon careful calculation of what is needed by the industry of our State, and impartial observation of what has been accomplished by kindred institutions in other countries.

Look at France, for example. Through the instrumentality of schools of design, of mining, and engineering, and other practical schools, she has long stood at the head of the world in certain practical arts; but until within a few years, her agriculture, left mainly to the ignorant masses, was in a deplorably backward state. Napoleon III. was sagacious enough to see the reason, and so, as soon as firmly seated upon his throne, he not only created a Department of Agriculture, whose head is equal in authority and in honor to the other executive heads of the imperial government, but began at once the establishment of agricultural schools of different grades in various parts of the Empire. The result is that the agriculture of France is to-day making more rapid progress than in almost any other country in the world, and the agriculturist is rapidly rising to a place of dignity and honor in the social scale. When travelling there, in 1862, we had frequent occasion to express our surprise at the marked change that had takken place in all these respects, and the invariable answer of the most intelligent men was: Yes, sir; this is a result of the agricultural schools. But special citations are not necessary. The bare fact that, from eight or nine such schools in all Europe in 1840, they have multiplied until now they number over 500, is evidence of the estimation in which they are held where their influence has been most thoroughly tested.

HOW SHALL THE PROPOSED COLLEGE BE ENDOWED?

In Europe, such institutions are endowed by the Government. The rulers are educated, intelligent men, and plainly see that it is only by an increase of knowledge that industry can be advanced, and ennobled, and, as a mere matter of economy, if there were no higher reason, would establish and endow them.

But the bill under consideration proposed that the establishment of the State Agricultural College of Wisconsin be by the combined means of State and people; the Legislature appropriating certain moderate sums only as fast as equal amounts should have been actually paid into the treasury of the College, on private subscription. Surely, no proposition could be more just to the general tax payer, and we believe that no intelligent property-holder would for a moment object to the inappreciable trifle which the inauguration of this beneficent institution would add to his tax for three or four years.

The amount proposed was only $30,000, payable in annual instalments of $10,000. At this rate the per cent. of the tax on the taxable property of the State would be as one-tenth of one mill to one dollar. In other words, the farmer whose property is worth $10,000, would be required to pay 60 cents per annum, for three years, or $1 80 in all, towards the establishment of the College; the farmer, with his 40 acres and snug little home, worth, say $3,000, 18 cents! Who believes there is a farmer in Wisconsin so ignorant or so mean that he would begrudge so paltry a sum, or even ten times the amount, for the advancement of his chosen occupation?

Farmers, mechanics, miners, engineers, and commercial men of Wisconsin! the proposed College (styled "Agricultural" only because agriculture is the *leading* industrial interest of this State,) is first for you and your children, and secondly for the good of every State interest. Will you not prove your wisdom and your resolution by an earnest sanction of the measure in the next session of the Legislature, through the medium of your representatives? The faith of the State is pledged to the people and to the Government of the United States, that the thing shall be done; and since nothing can be gained by a further postponement, why not begin at once?

Dry Wood for the House.—Many people imagine that green wood yields more heat than dry. This is impossible, since a portion of the heat is required to vaporize the water, and escapes as latent heat in the steam thus produced. Dry wood is not only much pleasanter to use, but is really more economical.

The Garnet Chili Potatoe.—Mr. Jarvis, of Madison, to whom we gave some of the seed, last spring, reports that the Chili has done well the past season, and is an excellent potatoe. What has been the experience of other experimenters?

Sorghum Manufacture—A Visit to Mr. Hutchinson's Works.

So long as the rebellion lasts, if no longer, the production of sorghum molasses and sugar cannot fail to interest the public of the entire North. We grant that the past season has not been a very encouraging one; but with regard to what other crop has it been very much more so?

Among the most successful operators in sorghum in this State, we are acquainted with none who have been more more successful in the growing of cane, or in the manufacture of syrup, than Mr. William Hutchinson, of Blooming Grove, in this county. And accordingly we devoted an afternoon, a short time since, to an inspection of his works.

HIS METHOD OF GROWING THE CANE.

In the first place, he spares no pains in making sure of good, pure seed; sending for it early, and testing it before planting. Secondly, he prepares his ground thoroughly. And, thirdly, he plants *without soaking.*

In the last particular he differs from many others, and we therefore think best to repeat his reasons, which were derived from experience. Having obtained seed which purported to be perfectly good, he took three separate boxes of earth, and planted 70 grains of the same seed in each. The first 70 grains he scalded, by pouring hot water upon them, and letting it stand a few minutes; the second box was planted with seed soaked in simply warm water; the third with seed as it came to hand, entirely dry. The first 70 grains failed to sprout at all, every one of them; the second lot partially failed; and the dry seed grew, every grain of it.

His method of planting is not peculiar, but his cultivation is more thorough than is the practice with many. He out-generaled the chinch bugs, the past season, by plowing a deep furrow around his cane field every morning. The bugs came up to the furrow

repeatedly, in mighty armies, and many of them perished in their attempts to cross over; but at last they became discouraged, and gave up the assault.

LOCATION AND MANAGEMENT OF HIS WORKS.

Mr. Hutchinson's sorghum works are built upon a gradual slope—the mill being, of course, on the upper side—so that the juice is easily conveyed by a trough to the reservoir, within the boiling-house. To render it as clean as possible, two or three copper wire screens, of different degrees of fineness, are made to intercept the flowing juice. The reservoir is a large hogshead, sunk in the ground, within the building, and by the upper end of the furnace. The juice is raised by a pump into a second reservoir, whose bottom just projects over the edge of the first pan, into which it is allowed to flow as fast as the process of evaporation will warrant.

The furnace is built of brick, with an iron mouth, is some 20 to 24 feet in length, by 6 in width, and so constructed, with a shallow passage for the smoke and flame, as that the heat constantly plays directly upon the bottom of the pans. The evaporator consists, first, of an iron pan, about 5x6, higher than the remaining part, and without the semi-partitions which characterise the Cook evaporating pans. The remainder of the evaporating apparatus is copper, and is made with the partitions, though Mr. H. has come to the conclusion that they are not of much value.

The best of dry wood is used at the works, and Mr. H. says it is out of the question to make a first class quality of syrup with bagasse, or any other inferior fuel. The boiling is rapid, and the skimming is kept up constantly, to prevent the *boiling in* of any portion of the scum.

The skimmings from the first pan are of a dark green color, and of no use, except to pour over the bagasse, to facilitaie the process of decay, in its conversion into manure. The skimmings from the second division of the evaporator are used in the manufacture of vinegar; and those from the last division, when reduced to the perfectly fluid state, by standing awhile, make a second class syrup.

THE SYRUP IMPROVES BY KEEPING.

On examining syrup just made, and comparing it with that made three years ago, we found the latter much improved in flavor, though originally not so fine in quality as that more recently made. As a rule, we do not like the taste of sorghum molasses, but this appeared quite equal to the best golden syrup; at least, we ate a saucer-full of it without a word of complaint.

MANAGEMENT OF THE BAGASSE.

As already intimated, Mr. Hutchinson manages to convert his bagasse into manure. This he does by taking a load or two of it at a time to the barn-yard, and treating it as he would straw. He has no difficulty in getting rid of it in this manner, and makes it a source of increased fertility to his soil.

WHAT MR. H. IS DOING FOR THE IMPROVEMENT OF HORSES.

While on Mr. Hutchinson's farm, we took occasion to look at his magnificent thoroughbred stallion, "Bail," one of the finest horses we have ever seen in this western country. "Bail" is of a handsome dark grey color, dappled, and forcibly reminded us of Torrey's description of McDonnald's "Selim," famous in the history of Gen. Marion's noble part in the Revolutionary War—"the eye of a hawk, chest like a lion, swift as a roebuck, and strong as a buffalo." He was sired by imported "Sovereign," of South Carolina, and bred in Kentucky, by Dr. Tarleton, of Fayette County. Although young, he has won thousands of dollars on the turf, as a running horse, in four mile heats, and never was beaten. Mr. H. is not a sporting man, and since he has owned him has never allowed him to go upon the turf. He clearly sees, however, that our horses need an infusion of the blood of

thoroughbreds, and hence keeps him for stock. We are glad to learn that his efforts are appreciated, and that during the past season a large number of the farmers of Dane and the neighboring counties have availed themselves of the opportunity thus afforded them for improving their breed of horses.

About those Chinch Bugs.

MR. EDITOR:—I was somewhat amused on reading your remarks about chinch bugs. The tar arrangement "took me down." It is about as rich a joke as plowing round so as to keep them out. Sir, chinch bugs *fly!* Then, of what use are such remedies?

But to the *Herald's* article. It says other crops are not particularly hurt by them. Then, how is it that most of the corn is white, and lying on the ground? Why, it is the bug that is to blame for most of it. Then *you* say fall plowing is believed by some to be fatal to their eggs. I do not believe it. The best wheat I saw here this harvest was on late spring plowing. I would not like to advise late spring plowing, for people are apt enough to leave too much work for the spring, without asking them to do so; yet I do believe that plowing the land deeply in the spring turns their eggs so far down that wheat and oats have a better chance to get out of their way.

As to the relative merits of drill and of broadcast sowing, I think they are on a par as to the bug. If we quit spring wheat, we may also quit oats and corn. My advise is to plow deep, either fall or spring, and to keep an eye on the difference. I have only noticed it this year, and one must not advise on one year's experience. But, sir, here is the grand idea that I have been working for for years, and I have almost succeeded, viz: to divide up your lands into fields, and have about one-half of them in pasture and hay. Seed down and break up every year, and I am in hopes that I shall not be troubled with the bug on the newly broken sod. I may get disappointed in my ideas, but then I think I shall have better crops, and consequently can afford the bugs a little.

I agree with you in denouncing as suicidal the skinning, all-wheat policy; but I tell you every one is not able to commence as you recommend, viz: to get sheep and cattle, and have a regnlar rotation. To build 670 rods of fence, besides 40 rods of movable fence, is the work of years, saying nothing of houses and barns, especially when help is so scarce, inferior, and high; lumber worth $23 00 per thousand; nails, $10 00 per keg; all to be raised out of 80 acres of poor prairie land, and your own hands to begin with. I am no grumbler nor whiner. My motto is the motto of my adopted State: "Forward!"—not by speculating, which, properly speaking, is *peculation*, or swapping jackets, as daddy Powers calls it, but by industry and perseverance.

R. MCFARLAND.

LODI, WIS., September, 1864.

NOTE.—Friend McFarland, you talk well on all points except what relates to the Chinch bug. There you are evidently in the fog. Chich bugs do "fly," but not until they have pretty much completed their ravages. Up to that period they are dependent on their legs for locomotion. And as to plowing them under in the spring, you ought to know that when your plowing commences they are already about as deep as your plow will put them. The object of fall plowing is not to bury them, but to break up their homes at the approach of the cold season, when they will find it difficult to re-establish themselves. Even then, however, we are not absolutely sure that plowing is a means of destruction. We simply reported what some persons believed they had demonstrated.—EDITOR.

Sorghum Interest, Past and Future.

OFFICE MENDOTA AGRICULTURAL WORKS, MADISON, NOV. 1, 1864.

MR. EDITOR:—The season is ended—the year is well nigh gone—and what of the times? Unlike that of 1863, the crop of sorghum has all been worked up into fine, light colored, golden syrup. And now, during the frosty mornings, how many families in the North-West are rejoicing over their breakfast of buckwheat cakes and syrup? In fact, if we were entirely deprived of the sorghum crop of this State, what an amount of wealth would be taken from us—how many sweet morsels should we lose! But this is an age of progress, and though we are collectively a long ways ahead of where the fall of 1863 left us, in the science of sorgo culture, yet there is much to be learned. We want the experience of others. How much per acre; what kind planted; when ripe; weight per gallon; strength of juice by the saccherometer; and suggestions innumerable that will occur to the grower.

There will be a Convention of the sorghum growers this winter, probably early in February; meanwhile, let every grower be making preparations to attend. Every county organization should send its delegate; and let no one come empty handed. Bring your samples of both syrup and seed (in the head, if possible), and bring answers to the following questions: number of acres planted by you in 1864; number of acres planted in your town in 1864; number planted in your county; cost per acre to grow; real or estimated cost of manufacture; how much syrup and sugar per acre; variety of cane planted, and which is preferred. If not convenient to be present in person, write answers to the above questions, add your signature and post-office address, giving town and county, and enclose it in an envelope, directed to the undersigned, and he will see that it is properly placed before the Convention.

We are yet in the infant school, although we are some ways from the bottom round; but we believe it is also a long ways to the top one, which we may reach if we compare notes often, and study the "better way."

Don't forget the time for holding the Convention, but watch for further notice.

O. S. WILLEY, Sec'y.

Sorghum and Imphee—Which is Best!

OFFICE MENDOTA AGRICULTURAL WORKS, MADISON, WIS., Oct. 18, 1864.

MR. EDITOR:—A line before me from A. W. Nason, the greatest sorgo grower in Illinois, says: "For practical working, we regard the sorgo (or Chinese) as best; but the white imphee (Neazana) yields the pleasantest syrup, and requires less power in grinding. The red imphee (Boomseeana) is a favorite with most of our farmers, by reason of its standing up so well against winds and storms, but it is very hard to grind."

We saw Mr. Nason's crop on the 25th of July last, (300 acres,) and it certainly looked a little ahead of anything we ever saw—very even, and then just heading.

It would be an item of interest to cane growers to hear, through the press, of the experience of others, in regard to different varieties, yield, hardiness, &c.

There was but a limited amount of any sort, except Chinese, planted, last spring; and if those who tried the Neazana and Boomseana would report, it would give valuable information to others who are just embarking.

Mr. Nason showed us several hundred dollars' worth of very fine vinegar, made from the skimmings, with no labor except that of putting it in barrels—as easy as doing anything else with it—and then letting it alone: a bank note for some who think it worthless, and throw it away.

O. S. WILLEY.

Sorghum Sugar.

A Mr. Allen, of Green County, has sent us a beautiful sample of sugar made this season from the sugar cane. It is of a fine straw color, is nicely crystalized, and possesses a very agreeable taste, quite equal to the best Muscovada. The man who brought the sample tells us that Mr. A. has manufactured about three barrels of sugar of the same quality. What peculiarity there may be in the process he employs we know not, but hope to learn.

A NEW PATENT METHOD.

We are credibly informed that a new method has been discovered by a gentleman of Nebraska, by which the manufacture of good sugar from sorghum syrup is perfectly easy. It consists in simply washing the syrup with water, and then subjecting it to severe pressure. The theory is that there is some inimical constituent present in the syrup, which may be washed out. The pressure is to expel the water. A gentleman connected with the Patent Office informs us that he has seen the experiment tried repeatedly, and that the discovery was deemed of sufficient importance to entitle the discoverer to a patent. It is suggested that the syrup should be carried as near to the point of sugar making as practicable without burning.

FIX UP AROUND THE HOUSE.—The stormy season having come, don't neglect to make everything as comfortable as possible about the house. If your door-yard is not supplied—as every door-yard ought to be—with good walks, boards, plank or broad stone should be placed about the doors, at least. On no account take your feet into the house covered with mud, on the theory that the "women folks" can sweep it out. They have something else to do, and will find it much easier to be amiable, if you and your hired men will take a little more pains to be decent.

Growing Winter Wheat.

MR. EDITOR:—In the August number of the FARMER I notice an article on "Winter Wheat Growing," by J. C. P., in which are some valuable suggestions. That winter wheat can be grown more extensively than at present, in Wisconsin, admits of not a single doubt, in my mind. I would suggest, in addition to early sowing and winter mulching, as there recommended, the great propriety of deeper plowing, and also deeper covering of the seed. The last is best done with the drill. Of the different modes of sowing wheat—broadcast and harrowing in the seed, sowing the same way and plowing it in, and drilling it—so far as experiments and observation go to show, drilling is the most successful in resisting the changes and severity of the winter season. Adjoining fields sowed in the different modes had the broadcast very much injured by drouth, and entirely winter killed; while the drilled came through and produced a fair crop. Much is due, in the success of the wheat crop, to deep plowing, and thorough pulverization of the soil, by harrowing and rolling alternately. Better devote the time to a part only of the area designed for wheat culture, than to undertake another field, demanding more seed, and more labor in cutting, with less yield than if what had been done had been well done. The second field had better be in clover, or a naked fallow, than making it the pretence of a wheat field. W. H. W.

SOUTH WINDSOR, CONN.

"SWELLED NECK" IN SHEEP.—The best preventive of this disease in sheep and lambs is to give an occasional feed of roots—turnips or carrots. A little feed of this kind every day is well, but if deficient of roots, a moderate feed twice or three times a week will serve to keep the bowels in good condition, and promotes the health of the animals.

Save the Fodder.

All you who have cut up your corn nicely should wait till it is properly cured; then take a good bed cord and cut it into pieces about six feet in length; make an eye on one end of the rope; go into the field, and lay one down each side of your shock; tumble half of the shock each way on to the ropes; bind them up, and haul them to the barn, or corn crib. When you have ropes enough for two loads, then one man in the field can tie up as fast as another will haul. If you put it by the corn crib, shock up well, and cover with straw. You will thus save all the leaves that would otherwise be lost by husking in the field.

R. McFarland.

Lodi, Wis., Sept. 19, 1864.

Tappahannock Wheat, Again.

Mr. Editor:—Two years ago this fall I obtained, through the Patent Office, from Maryland, one bag of Tappahannock wheat. It was sown on the 20th of September. It yielded three pecks, which was sown on the 1st of September, 1863, on one-half acre of land, and yielded eighteen bushels of very nice wheat, which was clear of smut, and which ripened and was cut during the last days of June. The heads were of a good length, and very heavy. I think it cannot be beat, as I have raised it both years by the side of the Ohio Blue-stem, which yielded, this year, only thirty bushels per acre, and was cut on the 10th of July.

R. H. McMahony.

Warm Stables.—If you would save fodder, make your stables and cattle-sheds warm. What you save of animal heat in this way you will not have to produce by the fuel of food. True, there must be ventilation, in order to the health of your animals, but most farmers in this State have a great deal more than is needed.

STOCK REGISTER.

Catarrh in Sheep.

Mr. Editor:—"T.," of Evansville, writes of a "kind of catarrh" in his flock of sheep. Mine suffer in a precisely similar manner: wheezing, sneezing, coughing, with a discharge from the nose, and, in many cases, difficulty in breathing. I do not know that I have lost any sheep, this season, except accidentally; but I have lost, out of one hundred and forty lambs, perhaps twenty or thirty, from the following disease, which is not hinted at in either of Randall's books, viz: the throat swells, the breath becomes very offensive, and sometimes the swelling discharges under the lower jaw, but not always. There is likewise great difficulty in breathing. Even the lambs which die seem to be in good condition. Although I purchased one hundred and twenty sheep, this summer, I do not think they brought the disease with them. I think it originated with them after their arrival, or in the old flock, which, early in the spring, was one of the most thrifty in this part of the country. I have seventeen bucks, mostly lambs, in a pasture, and none of them have been affected. The flock, unknown to me, had obtained access to the basement of a large unused stone building, during the hottest portion of the days of this unusually hot, dry summer. The ventilation was rather imperfect. Could that have originated the disease? The bucks in the pasture could not, of course, get into the basement. The flock was well salted, and ran on dry prairie and meadow land, having access, at all times, to the Minnesota River, for water.

Some more experienced flock-master may write something on this head interesting to wool-growers, and send it to the Farmer.

I never try remedies at random, and therefore have done nothing for this contagion or epidemic, except to omit to yard.

A word in regard to Prof. Torrey's theory

THE BLACK-FACED OR HEATH.

of the production of sex, at will, in animals. It is customary, in some flocks, to put with the ewes a teazing ram, at night. In the morning, those ewes which are seen to be in season are selected to be served by the stock ram. I should suppose the flock of breeding ewes would therefore be served (especially if there are a plenty of stock rams,) while their ovi are at that early stage during which female offspring would be certainly produced, and thus all, or nearly all, ewe lambs would be the result.

WILLIAM H. STODDER.

ST. LAWRENCE, MINN.

Some of the British Breeds of Sheep.

NO. VII.—THE BLACK-FACED OR HEATH.

This is one of the most interesting of the British breeds. Mr. Klippart, to whom we are indebted for the engraving, very correctly describes them as "probably the most numerous and best adapted to range on the mountainous districts of Great Britain."

"They are distinguished by their large spiral horns, and black faces and legs, fierce, wild-looking eyes, and short, firm carcasses, covered with long, open, coarse, shagged wool. Their weight is from ten to sixteen pounds per quarter, and their fleece from three to four pounds.

"They are seldom fed until they are three or four years old, when they fatten well, and give excellent mutton, and highly flavored gravy. Different varieties of them are to be found in all the western counties of England and Scotland, from Yorkshire northward, and they want nothing but a fine fleece to render them the most valuable upland sheep in Britain.

"The mutton is not so delicate as that of the South Down and the Welsh sheep, but is very juicy, and has the venison flavor, the dark color of the flesh of the deer, and is preferred to any other mutton by those who are accustomed to it.

"It has the preference of animal food in Scotland; much of it is sent, in carcass, to the English markets, and large numbers of the sheep are annually fattened on the pastures of the south.

"Owing to their restless habits, the grazing of them on inclosed lands is inconvenient.

"As of all the mountain races, the fore quarters are thin, a serious objection with

butchers. The fleece is thin, light, and of little value in market.

"The best variety by far of the Heath race is found on the central mountain in the south of Scotland, forming the county of Selkirk and Peebles, with the adjoining parts of Lanark, Roxburgh and Berwickshire. The Lammermuirs of Scotland also possess an enlarged variety of the breed, and have from time immemorial. The very peculiar habitation of the sheep is in the district of Tweeddale. They do not cross well with any other sheep."

THE BEE-KEEPER.

Patent Hives.

Mr. Editor:—Allow me to say a few words about patent hives. In the last number of the Farmer reference is made to a convention and hives on exhibition. I should think, judging from the personalities indulged in by Mr. P., that he is a little uneasy. What has caused it, I am unable to say. I have not felt jealous, in the least, about the convention. I thought the experience of all was frankly given; but the subject of bee-keeping is so closely allied to the kind of hive used, especially in wintering bees, that if any gentleman at the convention should say he used the Langstroth, and found it admirably adapted to wintering bees, it would not be "rushing or puffing his own wares." The object of the convention ought to be to freely discuss the evils incident to bee-keeping, their causes and cures. I know that bee-keepers have been ruinously sold, and it is because the great mass of them are ignorant of the requisites of a complete hive. Thus many buy a hive for moths, instead of bees, and then condemn patent hives; and unless the various hives are exhibited, and their working shown, they will be ignorant still. When some of the members of that convention, who had used the Langstroth Comb Frame, found their stocks died, notwithstanding they had an abundance of stores, and thought that the frame was too long for its height, and that the bees traveled too far from the heat and warmth of the hive to obtain their food, and were thus chilled, and died, it did not require an undue amount of self interest to stand up and honestly and frankly tell what they thought the shape should be; and if it favored Kidder, or any other patentee, it would be no great "puff." This must come out.

Many people engage in bee-keeping without the least knowledge of their habits or wants. They do not know how to guard against evils, and know nothing of the causes of disease, or their cures. They buy anything that claims bee-hive for its name, or use the old fashioned box hive, year after year. The combs become black and filthy, for each bee leaves its coating in the cell, which is constantly growing smaller. When one has lost all, he exclaims, "My bees sorter, kinder run out." I agree with Mr. P. when he says that such people know and say but little about bees.

And now, Mr. Editor, I have something very private to tell you, and yet I will talk so loud that all may hear: we will meet and discuss the subject of patent hives, and let all see who knows the most. We challenge everybody, throughout the Western States, to meet us. (See June and July numbers of the Farmer.) Let each competitor pay an entrance fee of five or ten dollars—we don't care what amount is decided on; and if there is not enough to make up fifty or one hundred dollars, we will pay the balance, in addition to our entrance fee. Each competitor shall make his entry on the first day of the convention, and select a committee; and whoever is entitled to the purse shall have it, whether he knows anything or not. Don't be frightened, Mr. P, or anybody else. We shall be there, and will do all we engage to do. J. Bullard.

Evansville, Aug. 15, 1864.

THE HORTICULTURIST.

The Ten-Weeks Stock—New Large-Flowered Dwarf.

The Ten-Weeks or Annual Stock presents nearly or quite all the requisites of a perfect flowering plant—good habit, fine foliage, beautiful flowers of almost every delicate and desirable tint, delightful fragrance, early flowering, and abundance of blossoms during the whole season, from July until frost. Flowers in splendid spikes. The seeds offered are from the best German grower of this splendid flower, and more than three-fourths will produce fine double blossoms. The Stock bears transplanting well, and seeds may be sown in the hot-bed or cold-frame, or in the open ground in May.

The variety of which the accompanying engraving is an illustration is a plant of dwarf habit, with magnificent long spikes of large double flowers; all colors mixed.—JAMES VICK.

Fruit Growers, Persevere!

The fruit season has, in some parts of the country, been so unfavorable to the fruit interests that some of our farmers are again feeling somewhat discouraged. To all such we would say, Be not disheartened. Every partial failure only contributes to our better knowledge of what is essential to success, and hence the better fits us to labor more surely for the advancement of fruit-growing in the future.

The experience of the past winter has enforced the importance of greater care in the se-

lection of varieties, while, at the same time, it has thoroughly convinced us that there actually are some varieties—and some of the best that are known, too—which may be grown without fear of total failure.

Fruit we may have in Wisconsin—apples, pears, plums, and all the small fruits grown in the temperate latitudes—and fruit we *must* have. Let every friend of horticulture and of the prosperity of his State persevere.

Fruit for the Northwest.

MR. EDITOR:—Some years since, I received a kind invitation to contribute something of my experience in fruit culture to our WISCONSIN FARMER. If agreeable to you, I will now place at your service some of the results of riper experience in nursery and fruit-growing.

Last winter gave us an opportunity to re-examine and amend even our *hardy* lists of fruits.

Were I to make up a list of twenty varieties of apples suited to Wisconsin, and the Northwest generally, with reference to hardiness, first, and secondly, to quality, as far as possible, it would be about as follows, ripening nearly in the order they stand:

LIST OF TWENTY OF THE HARDIEST APPLES, MOSTLY OF GOOD QUALITY.

1. Red Astrachan.	11. Talman Sweet.
2. Golden Sweet.	12. Yellow Bellflower.
3. Duchess Oldenberg.	13. Royal Pippin.
4. Fenton Sweet.	14. Northern Spy.
5. Late Strawberry.	15. Ben Davis.
6. Alexander.	16. Pomme Grise.
7. Fameuse.	17. Truesap.
8. Fall Queen (Horse).	18. Golden Russet.
9. Rosseau.	19. Perry Russet.
10. Siberian Crabs.	20. Rawle's Janet.

No. 2 is often set down as tender, in Wisconsin; but in this region it is hardy on prairie and timber soil. No. 12 does best on timber soil. Nos. 8 and 9 are so hardy, early and profuse bearers, that they should be in a collection. No. 4 has probably a local name. It is one of the best September sweets. No. 20 is frequently injured, especially in the forks, but is indispensable in a good collection.

LIST No. 2.

APPLES OF TWENTY VARIETIES, TOLERABLY HARDY—SOME OF THEM ENTIRELY SO—MOSTLY OF GOOD QUALITY. SOME OF THEM NOT SO WELL TRIED AS THOSE IN THE FIRST LIST.

1. Sweet June.	11. Jonathan.
2. German Bough.	12. Gloria Mundi.
3. Sops of Wine.	13. Vandervere.
4. Benoni.	14. Phœnix.
5. Carolina Red June.	15. Wine.
6 Am. Summer Pearmain.	16. Twenty Ounce.
7. Saxton.	17. Willow Twig.
8. Lowell (Orange).	18. Sweet Romanite.
9. St. Lawrence.	19. Large Romanite.
10. Westfield Seeknofurther.	20. Red Romanite.

The above list contains a surplus of early apples, but they are all good. No. 9 has usually stood the cold weather, but last winter injured some trees. No. 12 is not usually considered profitable; but the tree seems hardy, and some people want a few enormous apples.

ANOTHER LIST OF TWENTY-FOUR.

1. Barnhill Summer.	13. Wisconsin Native.
2. Summer Golden Pippin.	14. Milan.
3. Early Pennock.	15. Pale Genitan.
4. Big Red.	16. Limber Twig.
5. Keswick Codlin.	17. Canada Red.
6. Maiden's Blush.	18. Roman Stem.
7. Poster.	19. Keigher's Spitzenburg.
8. Cole's Quince.	20. American Pippin.
9. Ramsdell Sweet.	21. Male Carle.
10. Cathead.	22. Tewksbury M. Blush.
11. Fulton.	23. Norsweet.
12. Am. Golden Pippin.	24. Detroit Red.

Nos. 2, 10, 15, 16, trees hardy, but fruit not very good. Nos. 5, 6, 7, 11, 14, 17, and 18, fruit desirable, but trees not quite hardy. Nos. 1, 3, 4, 9, 12 and 20 not sufficiently tested to enable me to express an opinion. No. 12 is unsurpassed in fruit, if the tree proves hardy. No. 13 originated in this county. The tree is vigorous and hardy; the fruit is fair, but not the best. Nos. 18 and 19 give good satisfaction. Nos. 21, 22, 23 and 24 stand very well, but their fruiting qualities are not well tested.

ANOTHER LIST.

TOO TENDER FOR CULTIVATION.

1. Sweet Bough.	11. Fall Pippin.
2. Yellow June.	12. Holland Pippin.
3. Early Harvest.	13. Newtown Pippin.
4. Summer Bellflower.	14. Lady Apple.
5. Early Red.	15. Yellow Ingestrie.
6. Summer Queen.	16. Hadley Sweet.
7. Sine Qua Non.	17. Pryor's Red.
8. Fall Swaar.	18. Jersey Sweet.
9. Colvert.	19 Gravenstein.
10. Fallenwalder.	20. Peck's Pleasant.

21. Twenty Ounce Pippin.	31. Scolloped Gilliflower.
22. White Winter Pearmain.	32. Domine.
23. English Russet.	33. Rambo.
24. R. I. Greening.	34. Campfield Sweet.
25. Newtown Spitzenberg.	35. Ladies' Sweet.
26. Canada Reimethe.	36. Baldwin.
27. Black Gilliflower.	37. Esopus Spitzenberg.
28. Swear	38. Queen.
29. Winter Pearmain.	39 Cotton Cronical.
30. Michael Henry Pippin.	40. Pomme Royale.

A part of these sometimes struggle up into bearing trees, under favorable circumstances. Nos. 2, 7 and 31 seem to possess little vigor, but sometimes succeed on rich soils. Nos. 5 and 9 were heretofore set down as perfectly hardy; but an examination of all the trees shows that three out of four were hopelessly injured last winter. Many of the above will succeed on a seedling body.

MY PLUM EXPERIENCE

has been limited. Probably the finest plums will last a few years and bear moderately on wild stocks, grafted below the surface, while standing in the ground. Among those that have done best in this region I may mention the Lombard, German Prune, Imperial Gage, Yellow Egg, and Coe's Golden Drop. Many of my trees have been injured each winter. We have, however, in a plum known locally as the "Miner Egg," a good, hardy, long lived and regular bearer. It must have sprung from the class known as "Sloe," and "Chickasaw," but is larger and better every way. It is increased entirely from suckers; but the demand is not half met, even by drawing on all the old trees, so popular is it where known. I have a seedling of the "Miner," which I like still better, but have never propagated it. This ripens in August, and the parent in September and October, and lasts well.

ONLY ONE CHERRY

succeeds, that I know of. This is known as "Early May," or "Early Richmond."

MY PEAR EXPERIENCE

has been very limited in Southwestern Wisconsin. Seedlings, unmoved, seem to do tolerably well, but are chary of being disturbed. Last winter knocked grafts and seedlings severely. Pear culture will, probably, never prove profitable in Wisconsin.

MOST GRAPES DO WELL

if covered with straw from November till May. Our success does not prove peculiar in this respect.

If my observations and experience embodied in the foregoing shall prove of value to the nurserymen and fruit-growers of Wisconsin, I shall feel abundantly paid for its preparation, which is somewhat after the plan of friend Plumb's lists, published last spring. N. C. GOLDSMITH.

LANCASTER, GRANT COUNTY, August, 1864.

MECHANICAL AND COMMERCIAL.

Burson's Grain Binder.

MR. EDITOR:—Knowing that you never lead your followers astray, I was induced to buy one of Burson's Grain Binders, on seeing it advertised in the FARMER, and found it the best of all farming tools I ever saw used. My wife has used it all through this harvest. She weighs only one hundred and ten pounds, but she can bind the swarth of a reaper as easily as I can rake it. I have worked in the harvest field twenty-nine years, and have never seen anything that pleased me like that. I have got my stacking all done, and only two bundles burst open. The wire for binding, at the present high prices, cost me thirty cents per acre, and my grain was heavy straw, especially the rye and oats, for they were on low land. My spring wheat was short, but it was complete. I think a reaper should have a binder in the harvest, as much as a knife should have a fork. I shall soon thrash my grain, when I will answer any enquiries made by farmers. NORMAN COLE.

BRODHEAD, Aug. 29, 1864.

EDUCATIONAL.

The Iowa Agricultural College.

The plan of John Brown, of Desmoines, was finally adopted—estimated cost, $46,750. * * *. The building, with its projections, is to measure 157x65 feet. It is designed to accommodate about 110 students with rooms, together with professors' rooms, recitation rooms, parlors, library, laboratory, kitchen, laundry, store-rooms, wash rooms, etc.—*Prairie Farmer.*

In the above we have further evidence that the state of Iowa is in the lead of the most enterprising of all the western commonwealths. Years ago her statesmen resolved to make her foremost in all matters essential to her intellectual and social advancement, in full congdence that her material prosperity would be thus best insured. Her common schools, her numerous academies and colleges, and her University, are proof that her praiseworthy efforts have not been in vain.

In 1858, when there was little hope of securing aid from the General Government, she resolved to provide her industrial classes, especially farmers, who constitute so large a proportion of her population, with an institution of learning adapted to their wants; and although then unable to erect suitable buildings, and at once put the college upon a substantial basis, they did not fail to begin the work of its establishment. A farm was purchased, and its improvement commenced —the Board of Trustees, meantime, making themselves as useful as possible, by the purchase and gratuitous distribution of seeds, cuttings, &c., and by the collection and diffusion of knowledge calculated to promote the great objects contemplated by its incorporation. This work has been efficiently performed by the zealous and competent Secretary, Gen. Wm. Duane Wilson, since the year 1860; and immediately on the passage of the bill granting lands to the several states for the endowment of such institutions, the Legislature of the State accepted the donation, and selected and located the lands.

It now appears that liberal appropriations have been made by the State, and that the requisite buildings are soon to be erected.

We profoundly regret that our State has not shown equal intelligence and enterprise. We were the first to become a state, our population is about the same, and our resources compare favorably with hers. Why is it, then, that we so lag behind in these most noble educational movements? Have we less practical wisdom, as a people? or is it because our State affairs are in the hands of a set of miserable, selfish demagogues, who care nothing for the honor and the highest good of the Commonwealth? For the present, we leave it to the people to answer this question for themselves.

THE HOME.

Autumn.

Season of mists and mellow fruitfulness!
  Close bosom friend of the maturing sun;
Conspiring with him how to load and bless
  With fruit the vines that round the thatch-eaves run;
To bend with apples the moss'd cottage trees,
  And fill all fruits with ripeness to the core;
    To swell the gourd, and plump the hazel shells
  With a sweet kernel; to set budding more,
And still more, later blossoms for the bees,
Until they think warm days will never cease,
    For summer has o'erbrimmed their drowsy cells.

Who hath not seen thee oft amid thy store?
  Sometimes, whoever seeks abroad may find
Thee sitting, careless, on a granary floor,—
  Thy hair soft lifted by the winnowing wind:
Or, on a half reaped furrow, sound asleep,
  Drowsed with the fume of poppies, while thy hook
    Spares the next swath and all its twined flowers;
And sometimes like a gleam thou dost keep
  Steady thy laden head across a brook;
  Or, by a cider press, with patient look,
    Thou watchest the last oozing, hours by hours.

Where are the songs of spring? Ay, where are they?
  Think not of them; thou hast thy music, too,
While barred clouds bloom the soft-dying day,
  And touch the stubble plains with rosy hue,
Then, in a wailful choir, the dry leaves mourn
  Among the river sallows, borne aloft,
    Or sinking as the light wind lives or dies;
And full-grown lambs loud bleat from hilly farm;
  Hedge crickets sing; and now, with treble soft,
  The redbreast whistles from a garden croft,
    And gathering swallows twitter in the sky.

KEATS.

HEALTH AND DISEASE.

[From the Herald of Health.]

"What Shall We Eat?"

BY MRS. M. M. JONES.

[Continued from page 344.]

Now let us see what we can find wherewith our "Farmer's Wife" can "garnish

her table and satisfy the desires of hungry laboring men." Suppose we make out a "bill of fare" for one day.

Breakfast.—Warm corn meal or Graham "Gems," butter, boiled potatoes, hominy, boiled eggs, cold rice pudding, and canned raspberries.

Dinner.—Fresh meat of some kind, or corned beef, cold Graham "Gems," butter, mashed potatoes, asparagras, baked beans, pie plant sauce, custard pie, and Indian pudding.

Supper—Warm white "Gems," butter, canned strawberries, cracked wheat, corn starch, farina, and jelly cake.

This is for one day only, and you have to select from, for different days in the year, the following variety:

Meats.—Beef, mutton, veal, poultry, fish, and oysters.

Bread.—Graham, white flour, canaille, and corn meal "Gems."

Mushes.—Cracked wheat, Graham mush, corn meal mush, hominy, farina, corn starch, pearled barley, and rice.

Fruits.—Apples, pears, peaches, plums, cherries, currants, gooseberries, pie plant, strawberries, Lawton blackberries, black-cap and Antwerp raspberries, apricots, and grapes.

Puddings.—Rice, Indian, sago, tapioca, hominy, rusk, bread, cracked wheat, apple, and farina.

Pies.—Pie plant, apple, custard, rice, lemon, currant, gooseberry, cherry, strawberry, blackberry, raspberry, huckleberry, peach, plum, tomatoe, pumpkin, and squash.

Then there is the vegetable garden. Let us see what that affords. A good asparagras bed costs little except the first preparation, and for years will yield an abundant supply during the entire months of May and June. Spinach can be grown readily for greens. Green peas may be had from July to October, by successive plantings, and may be preserved for a whole year, by simply picking them when nice for the table, dropping them into boiling water, and allowing them to remain perhaps two minutes, then placing them upon plates or platters, and drying quickly. I have eaten dried peas in June that I could not believe were not freshly gathered from the vines, till I had been repeatedly assured that such was not the case. Green corn, string beans, and shelled beans, (both Lima and common,) may be dried in the same manner. I would here remark, that in cooking these dried grains, they should be soaked over night, and placed upon the stove, in the morning, as soon as the fire is built, and allowed to cook *very* slowly, all the forenoon. Green corn, string beans, and shelled beans may all be canned, by simply cooking them in just water enough to cover them, and sealing in the same manner as fruit cans are sealed; and no one, who, in January, has eaten a dish of succotash made of canned corn and beans, will need any assurance of its excellence. Tomatoes, also, are canned by cooking them about half as much as for the table, and sealing in the same way.

Thus, we have asparagras, spinach, green peas, string beans, Lima beans, common beans, tomatoes, potatoes, (both Irish and sweet,) beets, cauliflower, white and Russia turnips, cabbages, carrots, parsnips, salsify, and celery; and as for green corn, it may be had from August till October, by successive plantings. And any and all of the vegetables I have mentioned may be cooked by boiling in pure water, and seasoning with a little salt, or a small quantity of sweet cream and salt, or a trifle of butter and salt, and will be relished by almost every one.

So you see, my dear "Farmer's Wife," your case is not nearly so hopeless as you have imagined. You probably will not be

able to have all this variety this year, from which to choose; but if you are in earnest in your desire to "wash your hands and conscience from any share of this stomach abuse," you can, if your husband and yourself will but take the trouble, in two or three years, at farthest, have the materials for spreading a table which shall be not only conducive to health, but at the same time so palatable, so inviting, that the unanimous verdict of not only your husband, your children, and your friends, but also of your "six or sixteen stalwart, hard-working men," will be, that it is the *very best* table to which they ever had the pleasure of sitting!

And in the higher, keener enjoyment of life—in the added health, happiness and harmony of your own family, as well as that of others for whom it may be your duty to provide—you will have ample testimony of the benefits of hygienic living, and will reap, in years to come, for all your efforts now, a full and rich reward.

YOUTH'S CORNER.

Enigmas.

No. 1.—Geographical Enigma.—I am composed of 26 letters.

My 11, 1, 9, 4, 15, 12, is the capital of a Confederate state.

My 2, 5, 8, 7, 3, 9, is a river in Washington Territory.

My 24, 2, 12, is a cape off the coast of Massachusetts.

My 29, 26, 3, 12, 10, is a river in Georgia.

My 9, 11, 2, 10, 5, 19, is a river in South Carolina.

My 6, 11, 2, is a river in Virginia.

My 17, 12, 14, 15, 24, 12, is a river in Florida.

My 13, 11, 2, 16, 3, 26, 25, 19, is a town in Kentucky.

My 3, 12, 18, 15, 2, 11, is a town in Pennsylvania.

My 11, 2, 20, 22, 9, is a town in New York.

My whole is the motto of one of the United States. Alma Haseltine.

Mazomania.

No. 2.—I am composed of 13 letters.

My 1, 4, 9, is a drink.

My 5, 7, 12, 1, 6, is among the most useful bones of the body.

My 2, 10, 12, is a verb.

My 13, 9, 3, 4, is a farming utensil.

My 8, 2, 13, 11, 4, 10, is the name to which the majority of the laboring class of Wisconsin would answer.

My whole is what the best farmers of Wisconsin do. Wesley Sears.

Monticello.

ANSWERS TO ENIGMAS IN SEPTEMBER NUMBER.

To No. 1.—"Brazil." Sent in by Wesley Sears, Monticello; Mary and Gilbert Gilman, Plymouth; Emma Stoughton, Stoughton; and Minnie Stebbins, Cooksville.

To No. 2.—"Victory."

To No. 3.—"Richmond." Sent in by all the above.

I sincerely hope our little friends will not fail of interest in this department of the Youth's Corner, because of the few plain words that were said a short time ago. Any of you can write a good letter, with all the words spelled right, at least, if you will only take a little time and pains; and almost any one can get up a tolerable enigma or puzzle, if he will try—not just to get up something to be guessed, but something quite pretty and unusual.

The above enigmas were intended for the November number, but were crowded out by other matter. Mrs. Hoyt.

DOMESTIC ECONOMY.

RECIPE FOR LIGHT DUMPLINGS.—After making up your bread the second time, take off a sufficient quantity for dumplings, and set it away until about an hour before dinner; then make them up in rolls, as you would biscuit; sprinkle a little flour over your pie-board, and put them on it, far enough apart to allow for raising. Have ready a boiler with sufficient boiling water to steam them; place the steamer over it, and put in some of the dumplings, so as not to touch each other, (see that the lid is placed on tightly,) and let them remain ten minutes; then remove them, and put in others. Send them to the table hot, to be eaten with cream and sugar, or butter and molasses. In boiling dumplings, or any kind of paste, the cover should never be removed, nor the water allowed to cease boiling, until the paste is done, when it should be taken off before it becomes soaked and heavy.—*Exchange.*

IT IS, PERHAPS, not generally known that black pepper (not red) is a poison to many insects. The following simple mixture is said to be the best destroyer of the common house fly extant: Take equal proportions of fine black pepper, freshly ground, and sugar, say enough of each to cover a ten cent piece; moisten and mix well with a spoonful of milk (a little cream is better): keep that in your room, and you will keep down the flies. One advantage over poisons is, that it injures nothing else; and another, that the flies seek the air, and never die in the house—the windows being open.

CHEAP CIDER VINEGAR.—Take the water in which dried apples are washed and soaked, and after carefully straining, put in a vessel; add a pound of sugar, or its equivalent in molasses. Put in a piece of brown paper, and set where warm. In a few weeks you will have good cider vinegar. More sugar will improve it. The vinegar will also be better the more concentrated the cider is. The strongest vinegar is made from boiled cider.

IF ANY of your readers need a sure remedy for bed-bugs, they can have mine, and cleanse the house of this troublesome vermin, with very little expense. They have only to wash with salt and water, filling the cracks where they frequent with salt, and you may look in vain for them. Salt seems inimical to bed-bugs, and they will not trail through it. I think it preferable to *all* "ointments," and the buyer requires no certificate as to its genuineness.—*Mrs. L. C. C., Penn. Yankee.*

REMEDY AGAINST MOTHS.—An ounce of gum camphor, and one of the powdered shell of red pepper, are macerated in eight ounces of strong alcohol, for several days, then strained. With this tincture the furs or cloths are sprinkled over, and rolled up in sheets. Instead of the pepper, bitter apple may be used. This remedy is used in Russia, under the name of Chinese Tincture for Moths.

CHEAP SOAP.—Six pounds potash, five pounds lard, suit, or tallow, and one-fourth pound rosin; mix the ingredients well; let it stand five days; add ten gallons of boiling water; put all in a cask; stir it well every day for ten days; and in two weeks it will be fit for use. It is excellent for white clothes, but too strong for colored articles.

SUPERIOR vinegar and pickles may be made as follows: to one gallón of soft water add a pint of sugar or sorghum molasses; stir all well, and then add nearly a gallon of fresh, ripe tomatoes. Set the vessel aside, and in a few days you will have the sourest pickles you ever tasted, and the best vinegar.

TO REMOVE the stains on spoons caused by using them for boiled egg, take a little common salt, moist, between the thumb and finger, and briskly rub the stain, which will soon disappear.

WIT AND WISDOM.

A GENTLEMAN remarked, the other evening, at a party, that a woman is the most wicked thing in creation. "Sir," was the indignant reply of a young lady, "woman was made from man, and if one rib is so wicked, what must the whole body be?"

PROSPERITY hath this property: it puffs up narrow souls, makes them imagine themselves high and mighty, and look down upon the world with contempt; but a truly noble and resolved spirit appears greatest in distress, and then becomes more bright and conspicuous.—*Plutarch.*

TEMPERANCE puts coal on the fire, meal in the barrel, flour in the tub, money in the purse, credit in the country, contentment in the house, clothes on the children, vigor in the body, intelligence in the brain, and spirit in the whole constitution.—*Dr. Franklin.*

A COUNTRYMAN, being a witness in a court of justice, was asked by the council if he was born in wedlock. "No, sir," answered the man; "I was born in Lincolnshire."

POLITENESS is like an air-cushion: there may not be anything in it, but it eases jolts wonderfully.

NAPOLEON III.

MISCELLANEOUS.

Notables Whom we Saw in Europe.

NUMBER V.—THE EMPEROR, EMPRESS, AND PRINCE IMPERIAL, OF FRANCE.

Perhaps the most remarkable family in the world, to day, are the trio above-named, occupants of the Tuilleries. The biography of Charles Louis Napoleon not only possesses all the interest of the most extraordinary romance, but is at this moment, in its culmination, an actuality of most intense interest to all the nations of the earth. Nephew of the great Napoleon, who so shook the continents by the power of his matchless will and genius, and grandson of that most illustrious of European women, the Empress Josephine, history had a right to expect of him brilliant contributions to her pages. At first, his career gave but little promise, but at last how has he not made good the earnest hope and expectations of the First Emperor!

Born 1808, of Hortense, daughter of Josephine, and into the arms of Louis, King of Holland, fourth brother of Bonaparte, who, unhappily, soon separated from her, leaving him to the care of a deserted mother, with inadequate means; for a while a student in Germany; then an unsuccessful applicant for admission into France, in 1830; the year following, with his brother, a participator in the Italian strifes of that period; in 1834 leader of the futile attempt at Strasbourg to revolutionize the government and restore the Napoleon dynasty; then an exile to the

United States, a wanderer in the streets of New York, and a subsequent traveller in Mexico and South America; in 18— a mourner at the bedside of his dying mother, in Switzerland, and a protege of the Swiss government; immediately after a refugee in London, where he writes his famous work, *Idees Napoleoniennes*; in 1840 leader of a foolish attempt at Boulogne to revolutionize the French government, and take the reins out of the hands of Louis Phillipe; and then a prisoner for life in the fortress of Ham, where he writes other works, political and scientific, and whence he escapes to London in 1846; in 1848, after the expulsion of Louis Phillipe, received into France, and chosen a deputy to the National Assembly; next elected President of the new Republic; in 1851, by a remarkable *coup d'etat*, re-elected for ten years; in 1852 declared Emperor, by the people; in 1853 the successful leader of the Imperial Army, in alliance with England, against the Russian Empire; then again the heroic leader of the armies of France against Austria, and the proud restorer of Italian independence and comparative unity, under the sway of Victor Emanuel; finally, the conqueror of Mexico, upon whose unwilling throne he has placed an Austrian despot; and to-day the most powerful and most dreaded monarch of the world!—this, in brief, is the history of Napoleon III.

The opportunity to see such a man could not be neglected; aye, and there was the Empress Eugenie, Castilia's incomparable beauty! and the wonderful baby prince, who, by dint of his astonishing wit and Napoleonic will, if he does not rule France, does most emphatically rule the rulers of France—if these could likewise be seen, and all together, so much the better.

The American Minister would cheerfully secure us the coveted favor, but we could not afford to wait a week, and were disinclined to array ourself in the ridiculous flummery of court dress. Could we manage it in no other way? Yes. In the afternoon of every pleasant summer day, when in Paris, the Emperor is accustomed to ride out to his favorite retreat, *Le Bois de B.ulogne*—a very extensive and magnificent wood, with beautiful, shaded drives, charming artificial lakes, islands and cascades, just beyond the city wall—and by watching, as do thousands, for his exit from the court of the Palace, or for his return thereto, at evening, we might see him.

We were stopping at *Le Grand Hotel de Louvre*, nearly opposite the entrance to the Tuilleries, and thus without effort several imperfect views of the imporial party were enjoyed. Sometimes the Emperor went out quite alone, and in plain, unimposing style, and again with his family, and several royal guests, when he was attended by a number of magnificently mounted guards. It was on one of those last occasions that we had our most satisfactory view of His Majesty and of the Empress and Prince. They had gone out to the Bois de Boulogne, in company with the King of Holland, and other distinguished guests. The day was as balmy and beautiful as ever blessed this favored land in the month of May, and we had strolled out upon La Place de la Concorde, and thence along the beautifully shaded and gaily thronged Champs Elysees, up to the Arc do Triomphe, from which some of the finest boulevards of Paris radiate, and from whose proud summit one may have a glorious view of the most brilliant and beautiful city of the world. We had mounted the Arc erected by Napoleon I., to commemorate his

victories, gazed upon the glories of the Imperial City, and were about to return, when from the direction of Bois de Boulogne there came a rumbling sound, as of chariots and horsemen. *"L' Empereur !"* said a guard, quietly. Everybody had returned to the city, and we alone remained. A favorable circumstance, since there was no one to crowd us back, and none else to catch the eye of His Majesty. We planted ourself directly in the centre of the boulevard, so that the royal party must needs almost brush our garments in passing. The advance guard—seven magnificent looking men, splendidly mounted, and glittering with gold—came dashing down at full speed; then a handsome coach and four, bearing the King of Holland and Ministers of State; then a second magnificent coach, drawn by Arabian steeds, the near one of each span mounted by handsome riders in rich livery, containing the Emperor, Empress, and Prince, with postillions and four mounted guards in the rear. The sun, just going down, poured a flood of golden light upon the scene, and served to heighten the effect of a pageant already unrivalled in splendor by anything we had ever seen. Our position was well chosen, for the quick eye of Napoleon saw in us, at a glance, an American, determined to have a full view of the Emperor, and he gave us his undivided attention, taking off his hat and bowing, in true French style, in response to our salute, while the lovely Eugenie, sweetly smiling, waved her parasol, and the gallant little Prince waved his scarlet chapeau. They were, of course, quickly past, and in a moment were dashing, in right royal mode, down the Champs Elysees; but we were, nevertheless, able to catch a perfect impression of the physiognomy of each for preservation in the gallery of memory.

The Emperor is very well represented by the cut at the head of this sketch, though he seemed to us to have added some years to his face since the picture was taken from which our engraving was copied. Here he looks as he might have looked shortly after his accession to the throne. Now his face looks thinner, and shows deep lines of care. And no wonder. Through what struggles and perils has he not come to his reign, and by how uncertain a tenure does he hold the sceptre of empire! The French people admire his power and genius, and are grateful for the glory he has added to French arms; but they do not love him, and the number is not small of those who would rejoice in the opportunity to put an end to his life and dynasty. But few of the people of Paris receive him with vivas, and many look sullen and inwardly curse as he passes.

The Empress is as beautiful as she has been represented—beautiful in form, exquisite in the chisseling of her features, and radiant in expression. She is quite intellectual, moreover, and in the event of her husband's sudden death would hold the falling sceptre with a pretty firm hand.

The Prince was born March 16, 1856, and is therefore in his 9th year. He is a fine looking little fellow, and in respect of quickness of intellect and obstinacy of will is worthy of his illustrious parentage. The following story illustrates these prominent traits of his character: The Emperor had built for him a beautiful little chateau, in the Bois de Boulogne, and was accustomed to send him out there, occasionally, in pleasant weather, to play. In a short time he became weary of this place, and insisted upon a chateau somewhere else. He was not to be put off, and the mock palace was built. The Emperor had imported a body of Arab soldiers, for guards. Their gay

and grotesque uniform pleased the young Napoleon, and he must have them for his escort. The Emperor yielded. But after a time the French guards became jealous of their foreign rivals, and the Emperor reinstated the old French guard, when the Prince refused to appear with them, saying to his Governor, "Sir, if you refuse me the Arab guards, I will not only not take off my hat to the people, but I will stick out my tongue at them, both going and coming!" The Emperor knew the temper of his mind too well, and not daring to risk such an indignity to his people, effected a compromise, giving the young Emperor a guard half Arab and half French.

Should Louis Napeleon live a few years longer, and not terribly outrage the public heart by acts of intolerable oppression, it is probable that his son may reign after him, and succeed in establishing the Napoleonic dynasty beyond the power of the Bourbon or any other family to overthrow. But the French are the most mercurial people in the world, and there is no knowing what may come. The danger is, that, like his uncle, he will attempt too much, and so fail of everything.

EDITORIAL MISCELLANY.

Woolen Factory.

Our friend, John Micklejohn, of Fond du Lac, Wisconsin, in company with some other farmers in the neighborhood, has put up a large woolen factory in the town of Empire, about three miles east of the city of Fond du Lac. They have already put in a carding machine, and there is room enough and water power enough to operate all the necessary machinery for the manufacture of cloth. Neither of the proprietors being acquainted with the business, we understand that they wish to sell to some one who will put the factory in operation. We should think it an excellent chance for investment.

The Fine Seedling Apples

Which were reported in our last number as coming from Mr. "Hodgson," of Arena, should have been credited to Mr. Joseph Ray, of that vicinity. Friend R. will pardon the error, and accept our thanks for a second favor, in the form of a large box of beautiful apples, of the kinds we most highly esteem. Glad to know that he has some eighty bushels still left for his own family's use!

News Summary.

The most important events of the past month have been those which are strictly political. The re-election of Abrham Lincoln has been, as will appear by the following figures, remarkably unanimous:

	Popular Vote. Majorities.		Electoral Vote.	
States.	Lincoln.	McClellan.	Lincoln.	McClellan.
California	25,000	....	5	..
Connecticut	2,500	....	6	..
Delaware	.....	450	..	3
Illinois	35,000	....	16	..
Indiana	35 000	....	13	..
Iowa	40,000	....	8	..
Kansas	15,000	....	3	..
Kentucky	.....	25,000	..	11
Maine	18,000	....	7	..
Maryland	7,500	....	7	..
Massachusetts	70.000	....	12	..
Michigan	12,000	....	8	..
Minnesota	6,000	....	4	..
Missouri	20,000	....	11	..
New Hampshire	2,500	....	5	..
New Jersey	.....	5,500	..	7
New York	9,000	....	33	..
Nevada	2,500	....	3	..
Ohio	40,000	....	21	..
Oregon	3,000	....	3	..
Pennsylvania	15,000	....	26	..
Rhode Island	5,000	....	4	..
Vermont	30,000	....	5	..
West Virginia	20 000	....	5	..
Wisconsin	7,500	....	8	..
	420,500	30,950	213	21

The soldiers' vote of the states will probably carry this majority above 500,000, from which we are bound to infer that the American People mean to vindicate the authority

of the Government over every foot of the National domain.

The conspiracy of the rebels and their northern allies to burn Chicago on election day proves to have been real. Numerous arrests have been made, and several citizens of Chicago are implicated.

Military movements are progressing slowly. Sherman has moved his army from Atlanta, and is expected to turn up somewhere on the seaboard—at Mobile, Savannah, or Charleston. Grant's army is still knocking at the door of Richmond. Jeff Davis talks of arming 300,000 slaves—each to have his freedom and fifty acres of land!

Gold still fluctuates, but has nevertheless fluctuated since the first of November.

Thanks to Hon. A. A. Burton,

American Minister to the United States of Columbia, S. A., for samples of cotton grown at Bogota, and for the seeds of several beautiful plants and flowers grown in that country.

Jottings from the Editor's Note Book of Travel.

A VISIT TO THE COTTON MANUFACTURING DISTRICT OF ENGLAND.

MANCHESTER, July 20.

Lancashire. Who does not know that that means cotton? Yes, there is at least one place where Cotton is King. Lancashire is his empire; Manchester the seat of government. Just now, when the cotton interest is defying every other in my native land, and fiercely attempting to establish its supremacy there and everywhere, Manchester is a place of peculiar interest. A large and handsome city, built chiefly upon high ground, undulating, and upon both sides of the river Irwell; the east and west sides connected by eight bridges, both divisions meandered by numerous railroads and canals; population about half a million. Thirteen hundred years ago it was an important station of the Druids, whose altar they called Meyne. Subsequently passed into the hands of Edwin, King of Northumbria; then occupied by a colony of Angles, and afterwards by the Danes, and in 1820 seized by the Venecians. As late as 1596 the whole borough was sold for $16,500. To-day it is one of the finest and wealthiest cities of Europe; distinguished alike for its splendid edifices, for the number and quality of its public institutions, religious, educational, industrial, and charitable, for the activity and enterprise of its people, and especially as being the greatest cotton manufacturing city in the world.

The amount of capital invested in this business is immense. Number of establishments devoted to spinning and weaving cotton, 142; employing over 30,000 hands. And then there are nearly 40 immense establishments for bleaching, printing, and dyeing, some of them employing hundreds of hands, and turning out innumerable bolts of white and printed muslins per day.

We have spent the day in visiting these great factories and print works; studying the processes, and talking with the operatives. In some of them the deficiency of cotton is beginning to be severely felt, limiting the operatives to half work, and of course to half pay. There is but little murmuring, however, and a cheering disposition on the part of the more intelligent ones to bear this present trial, if so be that good may thereby come to the common race. The proprietors exhibit a less christian spirit, being goaded and stung by an insatiable desire for larger gains. To them the blockade is a personal infliction for the imagined advantage of

a nation of whose wonderful growth and progress they were already sufficiently jealous. With one of this class, the proprietor of the largest and most noted of the thread manufacturing establishments—Mr. Houldsworth—we discussed the American war for more than an hour; kindly, and yet with considerable warmth. Finally, he planted himself on the ground really occupied by the English government, and said to me, "Sir, I may as well talk plainly. You Americans are an ambitious, grasping and rather unscrupulous people, craving all the territory that joins you, and hardly satisfied with your own entire hemisphere. As a nation you are strong enough already. It is hardly safe that you should continue to grow in power as heretofore. There is enough of your empire for two powerful nations, and it would be a great deal better for us and the rest of the world if you were perpetually divided. That's what we would like!"

Messrs. Houldsworth & Co., of Manchester, are not alone; they represent a large class of the business men of Great Britain.

Of Mr. H.—to whom, notwithstanding his pro-Southern sentiments, we are indebted for the unusual courtesy of a full explanation of the process of thread and muslin manufacture, from beginning to end—we have learned some interesting facts connected with the business.

One hundred years ago the amount of raw cotton imported into Manchester was a little over two million pounds; in 1800 it was fifty-six millions, and in 1856 it was one thousand and twenty-one millions. Value of the exports of cotton manufactures in 1860, about two hundred and fifty millions of dollars!

But the amount manufactured is not the only thing of interest. The wonderful improvements in the quality is also worthy of note. At first, indeed but a few years since, the spinning was not only slowly but roughly done; the finest threads being comparatively coarse and knotty. Now processes are in use by which an almost invisible thread is made nearly as smooth and uniform as the most infinitesimal gold wire. Think of 15,000 spindles running in one factory, each making 5,000 revolutions in a minute, and winding up a thread so fine that it requires 2,500 hanks or skeins, of 840 yards each, to make one pound; or, in other words, so fine that 20 pounds of it tied end to end would reach around the world! Think of a fabric so gossamer-like that a lady could put a dress pattern into one side of her *port monie* and hardly know it was there! Such are the achievements of the arts of this wonderful age.

One of the most interesting of all the processes we examined was the means used for refining these fine threads. When spun as fine as possible they are each passed through a flame of burning gas, and then through holes in a brass plate, made by machinery, just the size of the intended thread. The flame singes off all superfluous fibres, and the infinitessimal perforation in the metal scrapes off all knots, and reduces it to a uniform size. The singeing is a surprise to every new spectator; for the thread moves so swiftly that it seems to stand perfectly still in the flame, and the wonder is why it doesn't burn off.

In the world there are now forty millions of cotton spindles whirring; and twenty-one millions of these are in Great Britain. America ranks next, operating six millions of spindles; France five and a half millions.

The weaving process has also greatly improved within a few years, but we cannot stop to specify. In some of the mills where

there are fifteen thousand spindles running, there are also as many as four hundred looms, all operated by steam.

The social condition of the poor of Manchester has interested me much. Some of the manufacturers are doing much to help the rising generation, by establishing free schools in connection with the factories, where the children of parents employed, and even children themselves employed a part of the time, are taught the rudiments of learning. I have visited some of these schools, and am pleased with the good work they are doing.

But in spite of these agencies, and in spite of the vast amount of labor, employing thousands on thousands of hands, there is much want and suffering, especially at a time like this, when so many are only half employed, and others without work at all, and without any resources other than their toil from day to day, are left to the mercy of nature and the untutored passions of the human soul.

But I must turn from these and other thoughts of the great, teeming, weltering city of Manchester, and seek, in nature's sweet restorer, balmy sleep, the rest my weary body needs, for to-morrow I am to see what there is in Leeds and Sheffield—the former the seat of the woolen factories of England, and the latter famous the world over for its cutlery—and then dash over to the coal-mines of Newcastle-on-Tyne.

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